

Appendix D

UXO Avoidance Report

General

MEC AVOIDANCE REPORT

The objective of this Munitions and Explosives of Concern (MEC) Avoidance Report is to discuss the MEC services which MKM provided for the RVAAP 14 AOC project at the RVAAP. The MEC avoidance tasks outlined in this report were required, and were implemented, due to the potential for site personnel and equipment to encounter hazardous MEC during the performance of environmental sampling tasks that were conducted by MKM. The MEC avoidance tasks were performed in accordance with all applicable Federal, state and local regulations, and any work or safety plans that were implemented by MKM.

GENERAL

MKM Engineers, Inc. (MKM) provided a MEC avoidance team (minimum Tech II) to provide on-site MEC avoidance support during intrusive sampling or work activities at the RVAAP 14 AOC sites. This report details the MEC avoidance operations conducted by MKM personnel, MKM subcontractors and site visitors.

MEC TEAM COMPOSITION

The MEC Team consisted of two MEC technicians during MEC avoidance activities that required the clearance of work areas. For intrusive sampling or work activities, only one MEC technician was required to provide down-hole magnetometer support.

GENERAL PROJECT DESCRIPTION

MKM conducted MEC avoidance at the RVAAP 14 AOCs. Due to the potential for encountering MEC, MKM was tasked with the following responsibilities:

- 1. Providing MEC recognition and avoidance training for non-UXO qualified personnel.
- 2. Providing escort to MKM personnel, subcontractors and equipment during the conduct of intrusive sampling activities.
- 3. Determining the location of anomaly-free locations for soil boring.

MEC FIELD INVESTIGATION EQUIPMENT

To conduct the MEC avoidance services, an UXO-qualified technician utilized a Schonstedt magnetometer to conduct sweeps of work areas and conducted down-hole surveys to detect ferrous anomalies. A response check of the Schonstedts was conducted daily, prior to use, to ensure that the instruments were operating properly. Only properly trained MKM UXO-qualified technicians handled and operated these instruments.

UXO SAFETY PRECAUTIONS AND PROCEDURES

GENERAL SAFETY MEASURES

Operations at the RVAAP 14 AOCs with the potential for encountering MEC were conducted only by appropriately trained, MKM UXO-qualified technicians. Non-UXO qualified personnel were allowed to operate in a MEC area only when escorted and directly observed by a UXO-qualified technician. For the purpose of this MEC avoidance report, a MEC area shall be defined as an area which was not cleared and demarcated by UXO-qualified technician and where the potential exists for encountering MEC. Once an area had been cleared and demarcated as being

anomaly-free, non-UXO personnel were allowed to walk and transport equipment within the demarcated area without direct supervision of the UXO personnel. However, intrusive activities by non-UXO personnel were directly supervised by an UXO technician. The general MEC safety measures listed below were strictly adhered to during the conduct of MEC operations at the RVAAP 14 AOCs.

- 1. Work areas for all sampling sites were surveyed by MKM UXO-qualified personnel prior to non-UXO qualified personnel accessing the area.
- 2. Using a magnetometer, MEC avoidance was conducted prior to drilling or augering activities through surface clearance of the point to be penetrated. An anomaly free area was designated for the intrusive activities. Down-hole surveying was conducted at two-foot intervals until undisturbed native soils were encountered or bedrock.
- 3. Using a magnetometer, MEC avoidance was conducted prior to driving stakes or marker posts into the ground through surface clearance of the point to be penetrated. An anomaly free area was designated for the intrusive activities.
- 4. Non-UXO qualified personnel did not enter or perform activities in a potential MEC area unless the area was cleared and demarcated by an UXO-qualified technician, or escorted by UXO-qualified personnel in an unclear potential MEC area.
- 5. Sub-surface magnetometer survey equipment was calibrated and operated in accordance with the manufacturer's requirements and procedures.

MEC AVOIDANCE PROCEDURES

MEC Avoidance for Access Lanes and Work Areas

Prior to personnel conducting sampling operations, UXO personnel conducted a visual and magnetometer survey of the access lanes to the sampling locations and the work areas adjacent to each location. The access lanes were surveyed to a minimum width of five feet (or twice the width of the widest piece of equipment that was used at the sampling site, as determined by the UXO Supervisor). Each access lane and work area was surveyed using a Schonstedt magnetometer, which allowed for MEC avoidance to an approximate depth of two feet. The procedures listed below were followed during access lane or work area clearances.

- 1. Surveyed access lanes and work areas were demarcated with surveyors tape.
- 2. The primary objective of each surface survey was to identify an access lane that accesses the work area as directly as possible without encountering subsurface anomalies, and to identify sampling locations that are also free of anomalies.
- 3. Subsurface anomalies were marked with pin flags and avoided by project personnel.

Clearance of Sampling Sites

MKM UXO-qualified personnel conducted a MEC clearance of each soil boring site, discrete sample locations and MI sampling grids to ensure that the soil around and under each intrusive site was free of potential MEC. Potential MEC areas were cleared through the use of surface and/or down-hole magnetometry. During the actual sampling and/or boring, only one UXO-qualified technician was required to escort the non-UXO personnel and clear the sampling locations. UXO-qualified personnel were not required to escort sample technicians into pre-cleared areas.

- 1. The procedure for sample collection within multi-incremental (MI) grids were as follows:
 - Surface clearance through visual inspection;
 - 32 MI sampling points were pre-cleared for MEC using a magnetometer by a UXO-qualified technician to a depth of two feet; and
 - MI samples were collected by MKM sample technicians to a depth of one foot bgs (shallow soil) or 0.5 foot bgs (sediment).
- 2. The procedure for discrete sample collection were as follows:
 - Surface clearance through visual inspection;
 - Discrete sample locations were pre-cleared for MEC using a magnetometer by a UXO-qualified technician to a depth of two feet; and
 - Discrete samples were collected by MKM sample technicians to a depth of one foot bgs (shallow soil) or 0.5 foot bgs(sediment).
- 3. The procedure for soil boring and well installation were as follows:
 - Surface clearance through visual inspection;
 - Boring locations were pre-cleared for MEC using a magnetometer by a UXOqualified technician to a depth of two feet;
 - Borings were advanced to two feet and re-checked using the magnetometer.
 Clearance was conducted at two foot intervals until native undisturbed soils were encountered or bedrock; and
 - If no potential MEC was encountered after reaching a depth of four feet, bedrock or native undisturbed soils, the borings could be advanced to their intended depth with no further MEC clearance.

MEC AVOIDANCE RESULTS

No surface MEC were identified, however surface metal debris (i.e. nails, wire, fence, rebar and etc.) were encountered and identified during the MEC clearance operations. No subsurface MEC were identified, however many subsurface anomalies (assumed MEC) were identified, flagged and avoided during MEC clearance operations. No access lanes or work areas were significantly re-located due to the presence of MEC.



Appendix E

Shallow Soil Field Sampling Forms

C-Block Quarry

Building 1200

Landfill North of Winklepeck Burning Grounds

Pistol Range

Load Line 5

Load Line 7

Load Line 8

Load Line 10

Wet Storage Area

Buildings F-15/F-16

Anchor Test Area

Atlas Scrap Yard

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Water sample description shoul	_								
color Odor Sheen Turbidity									
ogged By: Vijay Alluri (Please Print) Reviewed by: ERIC ELUS (Please Print)									
Signature: Vijay	1				Sign	ature: Ekzik		Date: _ _2	11/05

Location ID: 81255 Date: 11 05 0		1_50_	Field	d Sampling I	Report			na Army Ammunition ization of 14 RVAAP	
			Sa	mpling Inform	ation				
Source	Gro	andwater / Product		Surface Wa	ter /	Soil	/ Sedimen	nts / Sludge	
Method	Bailer		Sam	ple Bottle		Scoop		Trowel	
	Pump		Baco	on Bomb		Bowl		Hand Auger	
						Push Probe	×	Plastic Liner	×
Type/Construction		<i>f</i>		/		Mattocks			
Miscellaneous	Yes - No								
Sample Collection: 0910 hrs	Grab of increments taken:	<i>3</i> .2	Location:		Map Staked in Field d - Measured - Surv				
Sample Depth: O - 1 FT (below surfac	ce) Decon: Dec		- Each Day Each			Limite	u - Wousard - Sur	, e y e u
Field Parameters (at time of sample)	Parameters		Ot	ther Para	meters				
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cy	anide		
0.0		Explosives	X	Chromium +6		Ignitability	·		
Sample: 0.0	ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	X				QA Sam	ples	
Temperature	°C	Pesticides/PCBs	·			MS/MSD	Yes / No	1	NΑ
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID		N	A
pH	units	TOC				Equipment Rinse ID		N.	A
Turbidity	N.T.U.	Grain Size				Trip Blank ID		, NA	A
Soil sample description should incomplete the Munsell Color Odor Staining Water sample description should in Color Odor Sheen Turbia	tries Lay 70"		ipany: ided: MS/MSD - Duplicate - Same as Above - As		Field Blanks				
Logged By: Vijay A	Mari	(Please Print)			Revie	wed by: Eac	EUS	(Pleas	e Print)
Signature: Uijay		Sign	nature: SAS		Date: 2/1/35	5			

Location ID:	-0151	1-50	Field	l Sampling F	Report			na Army Ammunition ization of 14 RVAAP		
Date:	-v-0	<u>L</u>					Characteri	LARION OF 14 IX FACES	noes	
			Sa	mpling Informa	ition					
Source	Grou	indwater / Product		Surface Wat	er	Soil	Sedimen	its / Sludge		
Method	Bailer		Sam	ple Bottle		Scoop		Trowel		M5 11-4-0
	Pump		Bacc	n Bomb		Bowl		Hand Auger		
						Push Probe	X	Plastic Liner	X	
Type/Construction					1011	Mattocks	\times	N5 N-4-04		
Miscellaneous	Well Purg Yes No	ing Form	/							
Sample Collection: /b00 hrs			mposite MI, # c	- MI - Grab of increments taken:	30	Location:	Rlotted or Estimate	Map - Staked in Field d - Measured - Sur	i> veyed	
Sample Collection: Location: Sample Type: Composite - MI - Grab If MI, # of increments taken: Sample Depth: FT (below surface) Decon: Dedicated - Each Day - Each Location Location: Rotted on Map. Staked in Field Estimated - Measured - Surveyed										
Field Parameters (at time of sample) Analytical Parameters Other Parameters										
PID / FID Readings:		voc	TPH GRO		Corrosivity					
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cy	anide			
0.9	2	Explosives	\int	Chromium +6		Ignitability	\leq			
Sample: Q.O	ppm	Propellants		Nitrate						
Water Level	FT	TAL Metals					QA Sam	ples		
Temperature	°c	Pesticides/PCBs	V			MS/MSD	Yes / No		NA	
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID	<u></u>	N	Α	
рН	units	TOC				Equipment Rinse 10		N	A	
Furbidity	N.T.U.	Grain Size				Trip Blank ID		N	Α `	
Sample Description Staining Oyr 5/13, Month of Poorsy Sorsteen Low & Cast City Silvery Cly Sorsteen Sand O'					Split Sample Name: Agency/Con Address: QA/QC Prov Parameters:	D:	Sample Crip Blanks Listed	Field Blanks		
Soil sample description should include: Munsell Color Odor Staining Texture Sorting Plasticity Moisture Water sample description should include: Color Odor Sheen Turbidity Logged By: Michael Samelal, (Please Print)					Revie	wed by:	EUS	Plea	use Print)	The second secon
Signature: <u>Michael</u>	1/2/	L_	<u></u>	Sign	nature: ZRZM		Date:	5		

			Field	J Compling I	Panart				
Location ID: B/255-	0152	0-50	riei	d Sampling F	ceport			na Army Ammuniti	
Location ID: <u>B</u> 255 - Date: <u>04-No</u>	0-04	/					Characteri	ization of 14 RVAA	PAOCs
			Sa	mpling Informa	ution				
Source	Gro	undwater / Product	Sa	Surface Wat		Soil	s Sedimen	nts / Sludge	
Method	Bailer	Individual / 1100del	Sam	ple Bottle		Scoop	750	Trowel	
	Pump			on Bomb		Bowl		Hand Auger	
	- unip					Push Probe	1	Plastic Liner	-
Type/Construction					1	Mattocks	X	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Miscellaneous	Well Purg Yes - No		مر				<u> </u>	<u> </u>	
Sample Collection: 154/5 hrs	- MI - Grab	>	Location:	: Notted or	Map Staked in Fig	id			
Sample Depth: 0-/ FT		I	MI, # 0	of increments taken: - Each Day Each	Location		Estimate	d - Measured - St	irveyed
Field Parameters (at time of sample)		Ana	lytical	Parameters		O	ther Para	nmeters	-
PID / FID Readings:		VOC	TPH GRO		Corrosivity				
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cy	ranide		
/(Ó, O	Explosives		Chromium +6		Ignitability			
Sample: O.	O ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals					QA Sam	ples	
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA
рН	units	TOC				Equipment Rinse ID			NA
Tyrbidity	N.T.U.	Grain Size				Trip Blank ID			NA
Po octor No	Sample	e Description			Split Sample		Sample		/
10 48 3/a	. w.c	1.17 DOEL	\ So	Tred	Name:	191			
Jon Blash C	ima	511-60	0 /	ch 70/	Agency/Con Address:	ipany:			
Sa d 19			<u>)</u> / '	0					
<i>y</i>							-/		
						v ided: MS/MSD - Duplicate - Same as Above - As		Field Blanks	
Soil sample description should in		10.0							
Munsell Color Odor Staining Texture Sorting Plasticity Moisture									
Water sample description should				100 mg/s					
Color Odor Sheen Turbi	ndity	1 /					E116		
Logged By: Michael La	- Same	(Please Print)				601	EUS	-11	ease Print) سر
Signature: Michael	001				Sign	nature: 202	h	Date: _Z 1 -	<u> </u>

Location ID: 13/255. Date: 11-4-04	-016	M-SO	Field Sampling Report				Ravenna Army Ammunition Plant Characterization of 14 RVAAP AOCs		
			Sa	mpling Inform	ation				
Source	Gro	undwater / Product		Surface Wa	,	Soil	ls// Sedimen	ts / Sludge	
Method	Bailer		Sam	ple Bottle	A	Scoop		Trowel	
·	Pump		Baco	on Bomb		Bowl		Hand Auger	
						Push Probe		Plastic Liner	
Type/Construction		/			L L	Mattocks	X		
Miscellaneous	Well Purg	ging Form	/						1,
Sample Collection: 5 Shrs Sample Type: Composite - MJ - Grab 3 D Location: Plotted on Map Staked in Field If MI, # of increments taken Sample Depth: 0 FT (below surface) Decon: Dedicated - Each Day - Each Location Location: Plotted on Map Staked in Field Estimated - Measured Surveyed									
Field Parameters (at time of sample) Analytical Parameters								meters	/
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cy	ranide		
0.5	9	Explosives	X	Chromium +6		Ignitability			
Sample: O.O) ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	×				QA Sam	ples	
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID		1	ĪΑ
рН	units	TOC				Equipment Ripse ID		1	NA.
Turbidity	N.T.U.	Grain Size				Trip Blank ID		<u>1</u>	ΙA
Soil sample description should include: Munsell Color Odor Staining Texture Sorting Plasticity Moisture Water sample description should include:						ID:		Field Blans	
Color Odor Sheen Turbid									
Logged By: Stephen Sturgeon (Please Print) Reviewed by: Signature: Signature: Signature:						10	Fuis	Date: 2/1/20	ase Print)

Location ID: B1255-017M-50 Field Sampling Report Ravenna Army Ammunition Plant Characterization of 14 RVAAP AOCs									
Date: 11 0 5 0	4								
			Sa	mpling Inform	ation				
Source	Gro	undwater / Product	1	Surface Wa	iter /	Soi	ls) Sedimer	ts / Sludge	
Method	Bailer		Sam	ple Bottle	/	Scoop		Trowel	
	Pump		Baco	on Bomb		Bowl		Hand Auger	
						Push Probe		Plastic Liner	×
Type/Construction						Mattocks	X		
Miscellaneous	Well Purg Yes - No	ging Form							
Sample Collection: 1025 hrs	г	Sample Type: Co	mposite	Grab	~ -	Location		Staked in Fie	
Sample Depth: 0-611 FT ((below surfac	ce) Decon: Dec	MI, #7 dicated	of increments taken - Each Day - Each	30 n Location		Estimate	d - Measured - Şı	ırveyed
Field Parameters (at time of sample)	Parameters		О	ther Para	meters	/			
PID'/ FID Readings:		VOC		TPH GRO		Corrosivity			
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cy	anide		
Q.	0	Explosives	X	Chromium +6		Ignitability			
Sample: 9. (2 ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	$ \chi $				QA Sam	ples	
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID]	NA
pH	units	TOC				Equipment Rinse ID]	NA
X urbidity	N.T.U.	Grain Size				Trip Blank ID			NA
Soil sample description should incommend to the Munsell Color Odor Staining Water sample description should in Color Odor Sheen Turbia	2 Cm	ning external	Split Sample Name: Agency/Com Address: QA/QC Prov Parameters:	ipany: ided: MS/MSD=Duplicate					
ogged By: Vijay Alli	uyi	(Please Print)		<u> </u>	Revie	wed by: FRIC	EUIS	(Ple	ease Print)
Signature: Vijay	entered.				Sign	ature: <u>ERSU</u>	<u> </u>	Date:	5

Location ID: 31255 Date: 1105104	-0181	Y-S0_	Field	d Sampling I	Report	117.327		na Army Ammunitio	
Date:				Y . C.	-4:				
	T		Sa	mpling Inform		$\mathcal{L} = \mathcal{L}$),6.4:	4- (51- 1	
Source	 	andwater / Product	1_	Surface Wa	ter /		ls'/ Sedimen	Trowel	
Method	Bailer			ple Bottle	\mathcal{H}^{-}	Scoop			
	Pump		Baco	on Bomb		Bowl		Hand Auger	-
						Push Probe	<u> </u>	Plastic Liner	<u> </u>
Type/Construction	/			/		Mattocks			
Miscellaneous	Well Purg	ing Form							
Sample Collection: O940 hrs Sample Type: Composite - MI Grab Location: Plotted on Map Staked in Field If MI, # of increments taken: 31 Location: Plotted on Map Staked in Field Estimated - Measured - Surveyed									
Sample Depth: O - FT (below surface) Sample Depth: O - FT (below surface) Decon: Dedicated - Each Day Each Location Estimated - Measured - Surveyed									
Field Parameters (at time of sample) Analytical Parameters						О	ther Para	nmeters	
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cy	vanide		
0	.0	Explosives	X	Chromium +6		Ignitability			
Sample: (7.0		Propellants		Nitrate					
Water Level	FT	TAL Metals	X				QA Sam	ples	
Temperature	°c	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	иMHOs	Cyanides				Duplicate ID]	NΑ
рН	units	TOC				Equipment Rinse ID		1	NΑ
Turbidity	N.T.U.	Grain Size				Prip Blank ID		1	NΑ
No Odov F.5 VR R/4 Low floor loos Soil sample description should in Munsell Color Odor Stains Water sample description should	clude: ing Texture include:	silt to	/,)	red (lig 25)		e ID: <u> </u>		Field Blanks	
Color Odor Sheen Turbi							،۱۱۴ سر		
Logged By: Vijay	Allu	Y: (Please Print)				100	- 15U4S	1.4	ase Print)
signature: Vific	1				Sign	nature:	<u> </u>	Date: 211 e	

An co	- 2			Fiel	d Sampling	Report			<u> </u>		
Location ID: 31298-	oign.	50			• -	- .				Ammunition of 14 RVAAP	
Date: 12-1-04						<u></u>					
				Sa	mpling Inform	ation					
Source	Gro	undwater / Produ	ıct		Surface Wa	iter /	So	ils) Sedimen	ts / Slu	dge	
Method	Bailer			Sam	ple Bottle		Scoop	V.	Trow	el	
	Pump			Baco	эл Вотв		Bowl		Hand	Auger	
							Push Probe		Plasti	c Liner	/
Type/Construction	A post production of the second						Mattocks	1			
Miscellaneous	Well Pury Yes - No	ging Form .		مرز							
Sample Collection: 0845 hrs	3	Sample T			: - MI - Grab	3.1	Location	: Plotted on	Man	Staked in Field	D
Sample Depth:FT	(below surfa	ce) Deco			of increments taken: - Each Day - Eacl			Estimated	d - Me	asured - Surv	reyed
Field Parameters Analytical Parameter (at time of sample)							О	ther Para	meter	s	
PID'/ FID Readings:		voc			TPH GRO		Corrosivity				
Background:	ppm	SVOC			TPH DRO		Reactivity Sulfide/Cy	yanide			
		Explosives		X	Chromium +6		Ignitability				
Sample:	- ppm	Propellants			Nitrate						
Water Level	FT	TAL Metals		X				QA Sam	ples	The state of the s	
Temperature	°C	Pesticides/PCB	s				MS/MSD	Yes / No	A CONTRACTOR OF THE PARTY OF TH	N	ĪA.
Sp. Conductance:	uMHOs	Cyanides					Duplicate ID			N/	7
PH	units	TOC					Equipment Rinse ID			N/	
Aurbidity	N.T.U.	Grain Size					Trip Blank ID			NA	1
NO STAINING		e Description				Split Sample		Sample		-J	
CILBONIL SENAGE CIXE	- (STRO		4571 C	i> 1	WET	Name: Agency/Com					
DEGAN	ic siv		<u> </u>	7	WE!	Agency/Com Address:	pany:		/		
VICARN	U AV	TY CHAY						_/			
						OA/OC Prov	ided: MS/MSD = Duplicate	Trin Blanks -	Field Blar	iks	
, in the second		•					Same as Above — As				
'oil sample description should inc	oil sample description should include:					/				30.000	
		Sorting Plasticit	Munsell Color Odor Staining Texture Sorting Plasticity Moisture						XXX CONTRACTOR		
Munsell Color Odor Stainin	g Texture	Sorting Plasticit	y Moist.	ure							
	g Texture	Sorting Plasticit	y Moist:	ure							
Munsell Color Odor Stainin	g Texture aclude:	Sorting Plasticit		ure		Reviev	ved by:	- EWS		(Please	Print)

									
Location ID: <u>B</u> 12 SS	3-020	M-50	Fiel	d Sampling	Report		Raveni	ıa Army Ammı	mition Plant
Date: /2-/-04								ization of 14 RV	
			Sa	mpling Inform	ation				
Source	Gro	undwater / Product	604200000000000000000000000000000000000	Surface Wa		(So	ils Sedimer	ıts / Sludge	
Method	Bailer	and the same of th		rple Bottle		Scoop		Trowel	
	Pump		Bac	on Bomb		Bowl	-	Hand Auger	
		and the second s				Push Probe	V	Plastic Liner	V
Type/Construction						Mattocks			
Miscellaneous	Well Purs						,		
Sample Collection: 0936 hrs		Sample Type: Co	mposite	e - MI - Grab	25	Location	: Plotted or	Map Staked in	n Field
Sample Depth: 6 FT (If MI, # of increments Sample Depth: 6 FT (below surface) Decon: Dedicated - Each Day						Estimate	d - Measured	- Şurveyed
Field Parameters Analytical Paramet at time of sample)						O	ther Para	meters	
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background:) ppm	SVOC		TPH DRO		Reactivity Sulfide/Cy	yanide		
		Explosives	X	Chromium +6		Ignitability			
Sample:) ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	X				QA Sam	ples	
Temperature	ా	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA
pΗ	units	TOC				Equipment Rinse ID			NA
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA
NO STAINING	Sample	Description			Split Sample		Sample		/
organic serio	- Stanzan	(SUBATI ODZ)			Name:				
104R 4/3	SILTY (LOW PLASTICI	ty n	BISTTO WET	Agency/Com Address:	pany:		/	
	31214	207 1013	ue.	-GICHVEL			-/		_
					OA/OC Provi	ided: MS/MSD=Duplicate	Trin Blanks	Field Blanks	
		•				Same as Above - As			
oil sample description should incl	ude:								
Munsell Color Odor Staining		Sorting Plasticity Moisti	re		/				
ater sample description should in		•							
Color Odor Sheen Turbidi					/				
ogged By: Bob Wein	RICK	(Please Print)		***	Review	ved by: 544	eus	erene e e e de 100 e construir e e e e la Paramonta de la Seguida de Seguida de Seguida de Seguida de Seguida d	(Please Print)
mature: Bolowin						ature: H2		Date: 2/	105

Location ID: 131295	Location ID: 1255-021 M-50 Field Sampling Report Ravenna Army Ammunition Plant Characterization of 14 RVAAP AOCs									
Date: 11 10 0	4									
		(1343) (1344)	Sa	mpling Inform	ation		-			
Source	Gro	undwater / Product		Surface Wa	ter /	Soi	ls //Sedimer	ıts / Slud	lge	
Method	Bailer		Sam	ple Bottle		Scoop		Trowe	:1	
	Pump		Baco	on Bomb	Z_{\parallel}	Bowl		Hand.	Auger	
						Push Probe		Plastic	Liner	×
Type/Construction						Mattocks	X			
Miscellaneous	Well Purg Yes - No	ging Form								
Sample Collection: 6925 hrs	-	Sample Type: Co	mposite	e - MI - Grab	~~ ^	Location			taked in Field	
Sample Contents and Sample Special Surveyed If MI, # of increments taken: Decon: Dedicated - Each Day - Each Location Estimated - Measured - Surveyed Decon: Dedicated - Each Day - Each Location										
Field Parameters (at time of sample) Analytical Parameters Other Parameters										
PID'/ FID Readings:		VOC		TPH GRO		Corrosivity				
Background:)	SVOC		TPH DRO		Reactivity Sulfide/Cy	yanide			
0.9	/	Explosives	X	Chromium +6		Ignitability			·	
Sample: Q,Q	ppm 1	Propellants		Nitrate						
Water Level	FT	TAL Metals	×			·	QA Sam	ples		
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No	·	N.	A
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA	
рН	units	TOC				Equipment Rinse ID			NA	
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA	
No ode/		e Description Jo Stainiv	1 <i>4</i>		Split Sample		Sample			
104R 3/2 .	20177	2 6002/D 3	574	ed	Name: Agency/Com	nany*				
Non blower	- Clin	20 5.14	30		Address:	рапу.				
sad byra	ret 1	10 C						//	75.25	
3/4 had	no	standing	u	vater.	QA/QC Prov	vided: MS/MSD - Duplicate	- Trip Blanks	- Field Blai	nks	
					Parameters:	Same as Above - As	Listed			
						/				
Soil sample description should inc	clude:									
Munsell Color Odor Staini	ng Texture	Sorting Plasticity Moist	ure							
Water sample description should i	include:									
Color Odor Sheen Turbio	dity								17.2	
Logged By: Vijay A	Illuri	(Please Print)			Revie	wed by: FAC	1 EUS		(Please	Print)
Signature: Vilo	V				Sign	nature: 262	L	Date	e: 21195	,

Location ID: B12 S.S.	Location ID: BRS SS 022 M -SO Field Sampling Report Ravenna Army Ammunition Plant									
Date: 11/80/0							Characteri	zation of 14 RVAAP	AOCs	
			Sai	mpling Inform	ation		-	* * * * * * * * * * * * * * * * * * * *		
Source	Grou	ındwater / Product		Surface Wa		Soils	S / Sedimen	ts / Sludge		
Method	Bailer		Sam	ple Bottle		Scoop		Trowel	T	
	Pump		Bacc	on Bomb /	7 7	Bowl		Hand Auger		
						Push Probe	X	Plastic Liner	X	
Type/Construction					1	Mattocks		, , , , , , , , , , , , , , , , , , ,		
Miscellaneous	Well Purg	ing Form								
Sample Collection: 1025 hrs	/	Sample Type: Co	mposite	MI Grab		Locationx		Map-(Staked in Field		
Sample Depth: O - 1 FT (below surfac	te) Decon: Dec	MI, # o	of increments taken: - Each Day - Each	Location>		Estimate	d - Measured - Surv	reyed	
Field Parameters Analytical Parameters Other Parameters										
PID / FID Readings:	$\overline{}$	voc		TPH GRO		Corrosivity				
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cya	anide			
0	(0)	Explosives	×	Chromium +6		Ignitability				
Sample:	3 ppm	Propellants		Nitrate	*				_	
Water Level	FT	TAL Metals	×		SNO Nitr	te Analysis	QA Sam	ples		
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No	N	NA.	
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID		N.A	A	
рН	units	TOC				Equipment Rinse ID	· ·	N.A	A	
Turbidity	N.T.U.	Grain Size				Trip Blank ID		N.A	4	
_ No odor,	Sample	Description	9	grey	Split Sample		Sample			
mottles					Name: Agency/Com	pany:				
107R4/4		ists well	507	steel	Address:					
ronbloope	Los Can	Chy 401	ر ر و ز	1455/			/			
Sand 51	•					ided: MS/MSD - Duplicate		Field Blanks		
					Parameters:	Same as Above - As I	Listed			
									3.	
Soil sample description should incl	lude:									
Munsell Color Odor Staining Texture Sorting Plasticity Moisture										
Water sample description should include:										
Color Odor Sheen Turbid	ity					entrant Police 1975 Page				
Logged By: Viay	Muri	(Please Print)			Revie	wed by: ERIC	Eus	(Please	se Print)	
Signature: vig 4					Sign	ature: <u>Mr</u>	<u>L</u>	Date:	<u>. </u>	

Location ID: 4/W55	-020	8M-50	Field	d Sampling F	Report			a Army Ammuni ization of 14 RVA	
			Sa	mpling Informa	ıtion				
Source	Grou	andwater / Product		Surface Wa	er /	Soj	Sedimer	its / Sludge	
Method	Bailer		Sam	ple Bottle		Scoop		Trowel	
·	Pump		Bacc	on Bomb		Bowl		Hand Auger	
				//		Push Probe	X	Plastic Liner	X
Type/Construction				/	1	Mattocks			
Miscellaneous	Well Purg Yes - No	ing Form	/						
Sample Collection: 520 hrs Sample Type: Composite Mr - Grab If MI, # of increments taken: 50 Decon: Dedicated - Each Day - Each Location Field Parameters Sample Type: Composite Mr - Grab John Floring Plotted on Mar. Staked in Field Estimated - Measured - Surveyed Analytical Parameters Other Parameters									
Field Parameters (at time of sample)		Ana	lytical	Parameters		o	ther Para	nmeters	
PID'/ FID Readings:		VOC		TPH GRO		Corrosivity			
Background:	ppm	SVOC	~	TPH DRO		Reactivity Sulfide/Cy	yanide		
010		Explosives	<i>\</i>	Chromium +6		Ignitability			
Sample: O, O	ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	~				QA Sam	ples	
Temperature	℃	Pesticides/PCBs				MS/MSD	Yes/ No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID	LNWS	5-027M	DUP
рН	units	TOC				Equipment Rinse ID	<i>C</i>		NA
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA
No-wor, lie Nor Man Marie,	Modor, logst orown Moffle 1048 3/6, mast, well sated, non plane, site 80%, clay 20%						<u>‡</u> 20	M-SD UISUITE JR PARA Field Blanks	
Munsell Color Odor Stainin	ig Texture	Sorting Plasticity Mois	ture						
Water sample description should in	nclude:			,					
Color Odor Sheen Turbid	lity								
Color Odor Sheen Turbidity Logged By: Starhau Sturgeon (Please Print) Signature: Signa								Date:	(Please Print)

Location ID: L.N.W.	Location ID: LNWSS - 029 M-SO Field Sampling Report Ravenna Army Ammunition Plant Characterization of 14 RVAAP AOCS Date:									
Date: 10	25/04							zation of 14 RVA		
				mpling Inform						
Source	Grou	ındwater / Product		Surface Wa	ter /	Soi	ls) Sedimen	ts / Sludge		
Method	Bailer		Samj	ole Bottle	\mathcal{A}	Scoop		Trowel		
	Pump		Baco	n Bomb		Bowl		Hand Auger		
						Push Probe	X	Plastic Liner	X	
Type/Construction						Mattocks				
Miscellaneous	Well Purg Yes - No	ing Form		18 A					100 militarilyana	
Sample Collection: 1550 hrs	<u> </u>	Sample Type: Cor	mposite	- MI - Grab	30	Location	Plotted on	Man Staked in	Field	
If MI, # of increments taken: 30 Sample Depth: O FT (below surface) Decon: Dedicated - Each Day (Each Location) Estimated - Measured - Surveyed										
Field Parameters Analytical Parameters Other Parameters										
PID / FID Readings:		VOC		TPH GRO		Corrosivity				
Background: O ·O	ppm	SVOC	X	TPH DRO		Reactivity Sulfide/Cy	anide			
		Explosives	X	Chromium +6		Ignitability				
Sample: O. Y	ppm	Propellants	7	Nitrate						
Water Level	FT	TAL Metals	X				QA Sam	ples		
Temperature	℃	Pesticides/PCBs				MS/MSD	Yes / No		NA	
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA	
pH	units	TOC				Equipment Rinse ID			NA	
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA	
No o	Sample York	e Description	ing		Split Sample		Sample		/	
DK.Br. 104/4/2	SILTGS	7. w/ Clay 20%.	m	oist	Name: Agency/Con	100	120			
Low Plasheity Pour	ly Sorte	d			Address:	ipany.				
				- Control Control			/	/		
					QA/QC Prov	vided: MS/MSD - Duplicate	- rip Blanks -	Field Blanks		
					Parameters:	Same as Above - As	Listed			
Soil sample description should in	clude:									
Munsell Color Odor Staini		Sorting Plasticity Moist	ture		/					
Water sample description should i	_	•								
Color Odor Sheen Turbi	dity			j						
Logged By: Vijay	All	(Please Print)		· · · · · · · · · · · · · · · · · · ·	Revie	wed by: FLC	Fus_		(Please Print)	
Signature:	Jijay	1			Sign	wed by: Fuc	1	Date: Z	e2	

Location ID: L/W Date: 25- Oct	55° (330M-50	Field	d Sampling l	Report			a Army Ammuniti zation of 14 RVAA	
				mpling Inform					
Source	Gro	andwater / Product		Surface Wa	ter	Soi	Sedimen	ts / Sludge	
Method	Bailer		Sam	ple Bottle	/	Scoop		Trowel	
	Pump		Васс	n Bomb		Bowl		Hand Auger	
				·		Push Probe	×	Plastic Liner	\rightarrow
Type/Construction						Mattocks			
Miscellaneous	Well Purg Yes - No	ing Form							
Sample Collection: 455 hrs Sample Depth: 7 FT	i	Sample Type: Co	mposite f MI, # o dicated	MI - Grab of increments taken: - Each Day Each	30 T Location	Location	Estimate	Staked in Fig d - Measured - St	eld
Field Parameters (at time of sample)	Parameters		O	ther Para	meters				
PID / FID Readings:		voc	A	TPH GRO		Corrosivity			
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cy	anide		
		Explosives	/	Chromium +6		Ignitability			
Sample: 6.6	ppm	Propellants		Nitrate					
Water Level	1	TAL Metals					QA Sam	ples	*
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA
рН	units	TOC				Equipment Rinse ID			NA
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA
Soil sample description should incommunell Color Odor Staining	clude:	Sorting Plasticity Mois	ted, 57	9 N-35 ^{-/}		D:		Field Blanks	
Color Odor Sheen Turbio	lity 				/				
Logged By: Michael	5-	(Please Print)				wed by:	··<		lease Print)

Location ID: LNWSS	-03c	70 00	Field	d Sampling R	leport			na Army Ammunition	
Date: 25-0c+	-04						Characteri	ization of 14 RVAAP	AOCs
			Sa	mpling Informa	ation				
Source	Grou	undwater / Product		Surface Wat	ter	Soil	lls) Sedimen	ts / Sludge	
Method	Bailer		Samj	ple Bottle	\mathcal{A}	Scoop		Trowel	
	Pump		Baco	on Bomb	/	Bowl		Hand Auger	1
· 						Push Probe	X	plastic liner	X
Type/Construction									
Miscellaneous	Well Purgi Yes - No	ing Form	/						
Sample Collection: 455 hrs Sample Depth: 0-1 FT ((below surface	Sample Type: Con If M Decon: Ded	MI. # of	- MI) - Grab increments taken: - Each Day Each	30 Location	Location:	Plotted on 1	Map - Staked in Field - Measured - Surveyo	ed
Field Parameters (at time of sample)				Parameters		О	ther Para	meters	/
PID / FID Readings:		VOC	X	TPH GRO		Corrosivity			1
Background:	O ppm	SVOC	/	TPH DRO		Reactivity Sulfide/Cy	/anjde		
		Explosives		Chromium +6		Ignitability			+-
Sample: 6.6	, ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals					QA Sam	ples	
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID		NA	A
рН	units	тос				Equipment Rinse ID		NA	4
Turbidity	N.T.U.	Grain Size				Prip Blank ID		NA	1
Soil sample description should inc Munsell Color Odor Stainin Water sample description should in Color Odor Sheen Turbic	Overnge moist , Clay clude: ng Texture include:	160%, 5il-	e S		e ID:				
Logged By: James	Karroz	(Please Print)	(The state of the second state of	Revi	iewed by: 三名し	EWS	, (Ples	ase Print)
Signature: Arkes	202)	→				gnature:	2	Date: 2-1- c	.

Location ID: 4/VWSS-03/1/4-So Field Sampling Report Ravenna Army Ammunition Plant Characterization of 14 RVAAP AOCS										
Date: 10-3	(6- O	<u>4 </u>								
			Sar	mpling Inform	ation					
Source	Gro	andwater / Product		Surface Wa	ter	Soil	S / Sedimen	nts / Sludge		
Method	Bailer		Samp	ole Bottle		Scoop		Trowel		
	Pump		Baco	n Bomb		Bowl		Hand Auger		
		/				Push Probe	7	Plastic Liner	X	
Type/Construction				/		Mattocks				
Miscellaneous	Well Purg Yes - No	ing Form								
Sample Collection: 1410 hrs	į	Sample Type:	Composite	- MI - Grab f increments taken:	30	Location	Plotted or Estimate	n-Map Staked in ed - Measured -	Field Surveyed	
Sample Depth: O T FT ((below surfac	Decon:		- Each Day - Each			Louine	U - IVIOUSILITOU	jan voyea	
Field Parameters Analytical Parameters Other Parameters (at time of sample)										
PID / FID Readings:		VOC		TPH GRO		Corrosivity				
Background:	ppm	SVOC	X	TPH DRO		Reactivity Sulfide/Cy	ranide			
		Explosives	X	Chromium +6		Ignitability				
Sample: O.O	ppm	Propellants		Nitrate						
Water Level	FT	TAL Metals	X				QA Sam	ıples		
Temperature	/°c	Pesticides/PCBs				MS/MSD	Yes / No	,	NA	
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID		/	NA	
pH	units	TOC				Equipment Rinse ID			NA	
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA	
No-olor,	e Description					1				
Soil sample description should incommunell Color Odor Staining Water sample description should in	ng Texture	65), ((0)	Oisture	#/e		ID:		Field Blanks		
Munsell Color Odor Stainin	ng Texture	65], ((0)	Q Q loisture	tle	Name: Agency/Com Address: QA/QC Prov Parameters:	ID: pany; ided: MS/MSD - Doplicate -	Listed.	Field Blanks	(Please Print)	

									-74125-4414
/ N/10/5C-	- 03	1M-0A	Field	d Sampling F	Report		_		
Location ID: 4/10/55-	<u>- (/3)</u>	7 1 971						ia Army Ammun ization of 14 RVA	
Date: 10-26-0	7	<u>.</u>							
			Sa	mpling Informa	ation				
Source	Gro	undwater / Product		Surface Wat	er /	Soil	/ Sedimen	ts / Sludge	
Method	Bailer		Sam	ple Bottle		Scoop		Trowel	
	Pump		Bacc	on Bomb		Bowl		Hand Auger	
						Push Probe	X	Plastic Liner	X
Type/Construction		<u></u>				Mattocks			1
Miscellaneous	Well Purg	ing Form	/						
Sample Collection: 145 hrs	J -		mposite	- M - Grab	31)	Location:	Plotted or	Map Staked in	Field
Sample Collection: 445 hrs Sample Type: Composite - M - Grab If MI, # of increments taken: Sample Depth: FT (below surface) Location: Flotted on May Staked in Field Estimated - Measured - Surveyed								Surveyed	
Field Parameters (at time of sample)	and the second s	Ot	ther Para	ımeters					
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background:) ppm	SVOC	X	TPH DRO		Reactivity Sulfide/Cy	anide		
		Explosives	χ	Chromium +6		Ignitability			
Sample: O.O	ppm	Propellants	/	Nitrate					
Water Level	FT	TAL Metals	X				QA Sam	ples	
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA
рН	units	TOC				Equipment Rinee ID			NA
Turbidity	N.T.U.	Grain Size		,		Trip Blenk ID			NA -
Mo- alor, 10yr 4/4, v	Sample	Description of les	30)		Split Sample Name: Agency/Com Address:	ID:	Sample		
Soil sample description should inc Munsell Color Odor Stainin Water sample description should i Color Odor Sheen Turbic			ided: MS/MSD - Duplicate - Same as Above - As		Field Blanks				
Logged By: Stephen S	turges	(Please Print)			Revie	wed by: 5016	JEUS	1	(Please Print)
Signature: J Au	W/		····		Sign	nature: <u>ENG</u>		Date:	05
er Se	1	. •							

Location ID: <u>LNW5</u> Date: 10-26	s-0;	3211-50	Field	d Sampling I	Report			na Army Ammunitic ization of 14 RVAA		
			Sa	mpling Inform	ation					
Source	Gro	undwater / Product	1	Surface Wa	ter /	Sojls / Sediments / Sludge				
Method Bailer			Sam	ple Bottle		Scoop		Trowel		
Pump			Baco	on Bomb		Bowl		Hand Auger		
						Push Probe		Plastic Liner		
Type/Construction		/			- L -	Mattocks				
Miscellaneous	Well Purg	ging Form						-	•	
Sample Collection: 9:35 hrs		Sample Type: Co	mposite	e - 🕼 - Grab	7D	Location		n Map - Staked in Fie		
Sample Depth:FT (b	below surfac	ce) Decon: De	f MI, # o dicated	e - M - Grab of increments taken: - Each Day - Each	Location		Estimate	ed - Measured - Su	rveyed	
Field Parameters (at time of sample)		Ana	lytical	Parameters		О	ther Para	ameters		
PID / FID Readings:		VOC		TPH GRO		Corrosivity				
Background: \mathcal{O}, \mathcal{O}	ppm	SVOC	V	TPH DRO		Reactivity Sulfide/Cy	anide			
Ore		Explosives	V	Chromium +6		Ignitability				
Sample: O.O	ppm	Propellants		Nitrate						
Water Level	FT	TAL Metals	1				QA Sam	ples	/	
Temperature	°€	Pesticides/PCBs				MS/MSD	Yes / No	,	NA	
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID		1	ĪΑ	
рН	units	TOC				Equipment Rinse 1D			NA.	
Turbidity	N.T.U.	Grain Size		, ,		Trip Blank ID		1	ĪΑ	
Soil sample description should incl Munsell Color Odor Staining Water sample description should in Color Odor Sheen Turbidi		ED:		Field Blanks						
	Ving	(Please Print)			Revie	wed by: \Sigma\cup \Si	EUS	(Ple	ase Print)	
Signature: A						nature: ###		Date: _2/\/_25	5	

/

Location ID: LN W	SS (033 M-SO	Field	l Sampling l	Report		Raveni	na Army /	Ammunition	Plant
Date: 10 2	2104								14 RVAAP A	
			Sar	mpling Inform	ation					
Source	Gro	ındwater / Product /		Surface Wa		Soi	Js / Sedimer	nts / Sludg	e	
Method	Bailer		Samp	ole Bottle		Scoop		Trowel		T
	Pump		Baco	n Bomb		Bowl		Hand A	uger	
						Push Probe	X	Plastic 1	Liner	X
Type/Construction			/			Mattocks				
Miscellaneous	Well Purg Yes - No	ing Form								
Sample Collection: 1030 hrs		Sample Type: Con	mposite MI, # o	MI) - Grab f increments taken:	_30_	Location	: Plotted or Estimate	n Man St Meas	aked in Field sured - Surve) eyed
Sample Depth: O - FT (below surfac	ce) Decon: Ded		- Each Day - Each		11				
Field Parameters (at time of sample)		Anal	ytical	Parameters		О	ther Para	ameters		<u>/</u>
PID / FID Readings:		VOC		TPH GRO		Corrosivity				<u> </u>
Background: 0.0	ppm	SVOC	X	TPH DRO		Reactivity Sulfide/Cy	vanide			
		Explosives	X	Chromium +6		Ignitability				
Sample: O · O	ppm	Propellants		Nitrate						
Water Level	FT	TAL Metals	X				QA Sam	ples		
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No)	N	A
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA	<u> </u>
рН	units	TOC		· · · · · · · · · · · · · · · · · · ·		Equipment Rinse ID			NA	.
Turbidity	N.T.U.	Grain Size				Trip Blank ID		ANGENT OF STREET	NA	
No oc		e Description few grey	ott	ies	Split Sample		Sample			,
Joy 416 Bristly				Plasheily	Name:				/	•
Poorly Sorted					Agency/Com Address:	ipany:			/	
								\mathcal{I}		
					OA/OC Prov	v ided: MS/MSD = Duplicate	Trip Pourks	Field Blank		
		·				Same as Above - As		- 1 isiu maik		
									_	
Soil sample description should include:										
Munsell Color Odor Staining Texture Sorting Plasticity Moisture Water sample description should include:										
Water sample description should include: Color Odor Sheen Turbidity										
Logged By: Jijay	Allu	Y (Please Print)			Revie	wed by: FRIC	FUUS		(Please	Print)
- 	iau	(Tiouse Time)				nature: 1262	FLUS	Date:		5_

Location ID: LNW5		4M -SO	Fiel	d Sampling I	Report			a Army Ammunization of 14 RVA	
			Sa	mpling Inform	ation		_		
Source	Gro	undwater / Product	1	Surface Wa	ter /	Soil	s/Sedimen	ts / Sludge	
Method	Bailer		Sam	ple Bottle	A	Scoop		Trowel	
	Pump		Baco	on Bomb		Bowl		Hand Auger	
						Push Probe		Plastic Liner	X
Type/Construction						Mattocks			
Miscellaneous	Well Purg Yes - No	ing Form				slide hamn	nei 🗡		
Sample Collection: (M15 hrs Sample Depth: 0-1 FT (]	íf MI, # (MJ - Grab of increments taken: - Each Day (Each	30 Location	Location:	Plotted on Estimate	Man Staked in l d - Measured -	Field Surveyed
Field Parameters (at time of sample)		Ana	lytical	Parameters		O	ther Para	imeters	
PID / FID Readings:	·	VOC		TPH GRO		Corrosivity			
Background:	ppm	SVOC	X	TPH DRO		Reactivity Sulfide/Cyanide			
$O \cdot C$	<i>'</i>	Explosives	X	Chromium +6		Ignitability			
Sample: $\mathcal{O}.\mathcal{O}$	ppm	Propellants	X	Nitrate					
Water Level	FT	TAL Metals	X		QA Samples			ples	
Temperature	°C	Pesticides/PCBs	X			MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA
рН	units	TOC				Equipment Rinse ID			NA
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA
Sample Description 10473/4 Br.SILT 78 1. W Sand 20% Dry No Odor No Staining No Plashcity Rearly Sorted					QA/QC Prov	ID:		Fjeld Blanks	
Soil sample description should include: Munsell Color Odor Staining Texture Sorting Plasticity Moisture Water sample description should include: Color Odor Sheen Turbidity							- WS		(Place Brief)
Logged By: Vijay Signature: Vijay	Allur	(Please Print)				wed by: FLAC nature: FLAC		Date:1	(Please Print)

	 		Field	d Sampling I	Report					
Location ID: LNWS Date: 11 01 0	s -03	34 D-56	1 101	a Samping 1	серот				mmunition Plant 4 RVAAP AOCs	
Date:	4						-			
		<u>.</u>	Sa	mpling Inform	ıtion					
Source	Gro	undwater / Product	1	Surface Wa	ier /	Soils Sediments / Sludge				
Method	Bailer			ple Bottle	Scoop		Trowel			
	Pump		Baco	on Bomb		Bowl		Hand Au	ger	
					Push Probe	/	Plastic Li	ner		
Type/Construction		/				Mattocks				
Miscellaneous	Well Purg	ing Form		(Dec)						
Sample Collection: 1425 hr	's	Sample Type: Con	mposite	of increments taken:		Location	Fetimes	Man Stal	ked in Field	
Sample Depth: O - FT	(below surface	ce) Decon: Ded		- Each Day - Each	Location		Estillate	u - Measu	1ed - Surveyed	
Field Parameters (at time of sample)		Anal	ytical	Parameters		O	ther Para	meters		
PID / FID Readings:		VOC	TPH GRO			Corrosivity				
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cy	vanide		-	
\mathcal{O}_{-}	Ď	Explosives		Chromium +6		Ignitability				
Sample:	O ppm	Propellants		Nitrate						
Water Level	FT	TAL Metals					QA Sam	ples		
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA	
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA	
pH	units	TOC				Equipment Binse ID			NA	
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA	
No odor		e Description SEGIMIN G			Split Sample		Sample			
1000 314 Br. SEL	-t 70%		Dry	No Octor	Name:				/	
No Staining No Plas	sheily	Berly Sorted			Agency/Com Address:	pany:		/		
	. /									
						ided: MS/MSD - Duplicate Same as Above - As		- Field Blanks	100 (100 (100 (100 (100 (100 (100 (100	
Soil sample description should include:										
Munsell Color Odor Staining Texture Sorting Plasticity Moisture										
Water sample description should				j						
Color Odor Sheen Turbi				1		-0.45	51.11C			
J.	. /	(Please Print)				wed by: FRICE			(Please Print)	
Signature:	iay				Sign	nature:		Date:	21105	

Location ID: <u>L/V/U</u> /SS-03574 Date: <u>10-26-04</u>				d Sampling I	Report		Ravenna Army Ammunition Plant			
Date: 10-26	6-04						Characteri	zation of 14 RVAA	P AOCs	
			Sa	mpling Inform	ation					
Source	Gro	undwater / Product	Surface Water			Sojls / Sediments / Sludge				
Method	Method Bailer		Sam	ple Bottle		Scoop		Trowel		
	Pump		Bacc	on Bomb		Bowl		Hand Auger		
						Push Probe		Plastic Liner	/	
Type/Construction						Mattocks				
Miscellaneous	Well Purg	ing Form		1783						
Sample Collection: 1/05 hrs Sample Depth: 7 FT ((below surface	Sample Type: Concept Decon: Decon: Decon:	omposite of MI, # of edicated	e - MP - Grab of increments taken: - Each Day - Each	30 Location	Location		Map Staked in Fie d - Measured - Sur		
Field Parameters (at time of sample)				Parameters	, dervis	0	ther Para	meters		
PID / FID Readings:		VOC		TPH GRO		Corrosivity				
Background:	ppm	SVOC	X	TPH DRO		Reactivity Sulfide/Cy	anide			
		Explosives	X	Chromium +6		Ignitability				
Sample: O.O	ppm	Propellants		Nitrate						
Water Level	FT	TAL Metals	X				QA Sam	ples		
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA	
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID		<u> </u>	ΝA	
рН	units	TOC				Equipment Rinse ID		Ŋ	IA.	
Furbidity	N.T.U.	Grain Size				Trip Blank ID		Ŋ	ĪΑ	
Soil sample description should incommunicate the sample description should be sample should be s	y in 1	Split Sample 1D: Name: Agency/Company: Address: QA/QC Provided: MS/MSD - Duplicate								
12	turge	(Please Print)				wed by: FLIC I	gus	1 /	ase Print)	
Signature: Si AU					Sign	nature:		Date:	<u> </u>	

Location ID: <u>L/YW</u> 5 Date: <u>/0-26-0</u>	3614	Report			a Army Ammuni				
Date: 10-26-0	4								
Sampling Information									
Source	Gro	undwater / Product		Surface Wa	iter	Coile / Sediments / Sludge			
Method	Bailer		Sam	ple Bottle		Scoop		Trowel	
	Pump		Baco	on Bomb		Bowl		Hand Auger	
					Na San	Push Probe	· /	Plastic Liner	V
Type/Construction	/					Mattocks			
Miscellaneous	Well Purg Yes - No	ging Form	/				•		
Sample Collection: 1330 hrs		Sample Type: Co	mposite	MI) - Grab	_3 <i>V</i>	Location	Plotted or Estimate	Map - Staked in I	rield Surveyed
Sample Depth: O-/ FT (below surfac	ce) Decon: Dec		- Each Day (Each	Location				
Field Parameters (at time of sample)		Ana	lytical	Parameters		o	ther Para	meters	
PID / FID Readings:		voc		TPH GRO		Corrosivity			
Background: \mathcal{O}, \mathcal{O}	ppm	SVOC	X	TPH DRO		Reactivity Sulfide/Cy	yanide		
		Explosives	X	Chromium +6		Ignitability			
Sample: O10	ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	X				QA Sam	ples	
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA
рН	units	TOC		100 100 100 100 100 100		Equipment Rinse HD			NA
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA
No-color,	10 yr 3/4, moist, well losted						Sample		
Sand b/.		-	<u>, </u>			Part Company			
		QA/QC Provided: MS/MSD Duplicate Trip Blanks Field Blanks Parameters: Same as Above As Listed							
Soil sample description should inc									
Munsell Color Odor Staining Texture Sorting Plasticity Moisture									
Water sample description should in									
Color Odor Sheen Turbidity									
Logged By: Stephen Signature: J. Aliw	sturge M	(Please Print)			Revie Sign	wed by: FRIC	EUS	Date: 2/1	Please Print)

Location ID: LNWSS	-03	7M-50	Field	d Sampling I	Report				a Army Ammuniti	
Date: 1- NOV - 04	4							Characteri	zation of 14 RVAA	AP AOCs
			Sa	mpling Inform	ation					
Source	Grou	indwater / Product		Surface Wa			Soi	ls /Sedimen	ts / Sludge	
Method I	Bailer		Sam	ple Bottle		/	Scoop		Trowel	
F	Pump		Baco	on Bomb	\mathcal{A}		Bowl		Hand Auger	
							Push Probe	X	Plastic Liner	X
Type/Construction	/						Mattocks			
Miscellaneous V	Vell Purg es - No	ing Form	/							
Sample Collection: 1015 hrs		Sample Type: C	omposite	MI) Grab			Location	Plotted or	Map - Staked in Fi	ield)
Sample Depth: O-1 FT (bel	low surfac	e) Decon: De	If MI, # o edicated	of increments taken: - Each Day - Each	Location			Estimate	d - Measured - S	urveyed
Field Parameters (at time of sample)		Ana	lytical	Parameters			0	ther Para	meters	
PID / FID Readings:		VOC	TPH GRO			Corrosivity				
Background:	ppm	SVOC	X	TPH DRO			Reactivity Sulfide/Cy	yanide		
0.0		Explosives	V	Chromium +6			Ignitability			
Sample: O. O	ppm	Propellants		Nitrate						
Water Level	TI.	TAL Metals	1					QA Sam	ples	
Temperature	°C	Pesticides/PCBs					MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides					Duplicate ID	LNWS	S-037M-D	JAP .
рН	units	TOC					Equipment Rinse ID			NA
Turbidity	N.T.U.	Grain Size					Trip Blank ID			NA
Dark Brown 25%. No o No plasticity 7.5 yr - 2.5/3	dor	Description 70° Silt 70° No Stair OST LOCAT	oning Ton	WISand	Split Sa Name: Agency/ Address	了(Com	pany: <u>USACE</u>	(CELR -Low	SO SUL-ED-E) SULLE Lther King	Pho
Soil sample description should include Munsell Color Odor Staining Water sample description should include Color Odor Sheen Turbidity	ided: MS/MSD Duplicate Same as Above As	Listed	Field Blanks							
Logged By: Qmes k	3	(Please Print)	F		wed by:	Bole S Boles	Date: 04/23	Please Print)		

Location ID: LNWSS-03	38M-50		Field	d Sampling R	Report		Ravenn Characteri	na Army Ammunition ization of 14 RVAAP	Plant AOCs
			Sa	mpling Informa	ation				
Source	Grou	indwater / Product		Surface Wat	ier /	Soil	ls //Sedimen	its / Sludge	
Method	Bailer		Sam	ple Bottle	/	Scoop		Trowel	
	Pump		Bacc	on Bomb		Bowl		Hand Auger	
						Push Probe	X	Plastic Liner	X
Type/Construction		/		Zan I		Mattocks			
Miscellaneous	Well Purg Yes - No	ing Form	/						
Sample Collection: (OSS hrs Sample Depth: 0~/ FT (s (below surfac	Sample Type: Con If the) Decon: Decon	MI, # c	e MI Grab of increments taken: - Each Day Each	SO Location	Location	Plotted or Estimate	n Mag - Staked in Field d - Measured - Surve	eyed
Field Parameters (at time of sample)				Parameters	-	0	ther Para	nmeters	
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background:	ppm	svoc	X	TPH DRO		Reactivity Sulfide/Cy	anide		
0.0	ן ן	Explosives	X	Chromium +6		Ignitability	,		
Sample: 0 0) ррт	Propellants		Nitrate					
Water Level	FT	TAL Metals	X				QA Sam	ples	_
Temperature	°c	Pesticides/PCBs				MS/MSD	Yes / No	N	ΙΑ
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID		N.A	<u>.</u>
рН	units	TOC				Equipment-Kinse ID		N.A	<u> </u>
Turbidity	N.T.U.	Grain Size				Trip Blank ID		NA	L Company
	Sample: W/Sar	e Description of 30% Dry No 7.57 - 3/4	Odo/		Split Sample Name: Agency/Com Address:	ID:	Sample		
Soil sample description should inc					ided: MS/MSD - Duplicate Same as Above - 18		Field Blanks		
Munsell Color Odor Stainii		Sorting Plasticity Moisi	ture			The Secretary			
Water sample description should i									
Color Odor Sheen Turbio	F								
Logged By: Act Dvn	WY 1	(Please Print)				wed by:	suis_	1 1	e Print)
Signature:	Meg				Sign	nature:	<u> </u>	Date: 2 BS	<u>-</u>

Location ID: Law 55-0 Date: Ol Nov 04	Date: OI NOVOY				Report	Ravenna Army Ammunition Plant Characterization of 14 RVAAP AOCs				
			Sa	mpling Informa	ation					
Source	Gro	oundwater / Product /		Surface Wa	iter	Soi	ils) Sedimen	ıts / Sludge		
Method	Bailer	$\overline{}$	Sam	iple Bottle	\mathcal{A}	Scoop		Trowel		
	Pump		Bacr	on Bomb		Bowl		Hand Auger	T	
						Push Probe	X	Plastic Liner	×	
Type/Construction		/				Mattocks		Sircheltonner	X	
Miscellaneous	Well Purg Yes - No	ging Form	1	and the second				,		
Sample Collection: //56 hrs Sample Depth: 0 - FT (S	Sample Type: Cor	f MI, # o	e MI Grab of increments taken: - Each Day Each	30 Location	Location		n Map Staked in Field d - Measured - Surv		
Field Parameters (at time of sample)			Parameters		0	ther Para	meters	/		
PID / FID Readings:		VOC		TPH GRO		Corrosivity			$\prod_{}$	
Background:	O ppm	SVOC	X	TPH DRO		Reactivity Sulfide/Cy	yanide			
		Explosives	X	Chromium +6		Ignitability				
Sample: O - 0	O ppm	Propellants	X	Nitrate						
Water Level	FT	TAL Metals	X				QA Sam	ples	/	
Temperature	°c	Pesticides/PCBs	X			MS/MSD	Yes / No	N	ĪA.	
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID		NA	<u>, </u>	
PH	units	TOC				Equipment Rinse ID		NA	<u>.</u>	
Turbidity	N.T.U.	Grain Size				Trip Blank ID		NA	1	
No Play her Stit Gs/ No Play her y 7. Syr Soil sample description should incomment to the Munsell Color Odor Staining Water sample description should in Color Odor Sheen Turbia	clude: ng Texture include:			No Steining	Address: QA/QC Prov. Parameters:	ided: MS/MSD - Duplicate - Same as Above - Ay	∡isted	Field Blanks		
Logged By: Mat Duly	, <u>, , ,</u>	(Please Print)		71'	Reviev	wed by: FRIC	EUS	(Please	: Print)	
Signature:	My				Sign	ature: 56-51h		Date: 2/1/05	,	

Location ID: LNW55-039 Date: Of Nov 04	ìD-5 0		Field	d Sampling I	Report		Ravenna Army Ammunition Plant Characterization of 14 RVAAP AOCs			
			Sa	mpling Inform	ation					
Source	Grou	indwater / Product		Surface Wa	ter /	Soi	ls Sedimen	its / Sludge		
Method	Bailer		Sam	ple Bottle		Scoop		Trowel		
<u>-</u>	Pump		Baco	on Bomb		Bowl		Hand Auger		
						Push Probe	X	Plastic Liner	X	
Type/Construction					,	Mattocks				
Miscellaneous	Well Purg Yes - No	ing Form		2.0 (4884) (1995) 3.7 (484) 3.7 (484)					,	
Sample Collection: 1150 hrs		Sample Type: Co	mposite	- MI Grab	, .	Location		Mas Staked in Fi		
Sample Depth: 0-1 FT (b	elow surfac			of increments taken: - Each Day Each	Location		Estimate	d - Measured - Si	urveyed	
Field Parameters (at time of sample)		Anal	Parameters		О	ther Para	meters	/		
PID / FID Readings:		VOC *	Z	TPH GRO		Corrosivity	j			
Background:	ppm	svoc		TPH DRO		Reactivity Sulfide/Cy	anide			
0.	Ø	Explosives		Chromium +6		Ignitability				
Sample: Ca	C ppm	Propellants		Nitrate						
Water Level	FT	TAL Metals					QA Sam	ples		
Temperature	℃	Pesticides/PCBs				MS/MSD	Yes / No		NA	
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA	
рН	units	TOC				Equipment Rinse ID		· 	NA	
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA	
Saturated Dk. Begwa No Staining, No Plast	STLT	Description 76% W/ Sand ZS/. 7.Syr 4/6	Ns (Odur	Parameters:	rided: MS/MSD - Duplicate Same as Above As		Field Blanks		
Soil sample description should inclu Munsell Color Odor Staining Water sample description should inc Color Odor Sheen Turbidit Logged By:	Texture	Sorting Plasticity Moist	ure			wed by:	EUS	; 1	ease Print)	

Location ID: L NW55-C)40 M-50	<u> </u>	Field	d Sampling I	Report			na Army Ammunitio ization of 14 RVAAF	
	**		Sa	mpling Inform	ation				
Source	Gro	undwater / Product /		Surface Wa		Soil	s / Sedimer	nts / Sludge	
Method	Bailer		Sam	ple Bottle		Scoop		Trowel	
·	Pump	_/ _	Baco	оп Воть	710	Bowl		Hand Auger	
						Push Probe	X	Plastic Liner	X
Type/Construction					1	Mattocks	 / `		
Miscellaneous	Well Purg Yes - No	ging Form	,				1		1
Sample Collection: 1550 hrs		Sample Type: Co	mposite	MI Grab	30	Location		Man Staked in Fiel	
Sample Depth: 0 1 FT (below surfac	ce) Decon: Dec	MI, # o	of increments taken: - Each Day Each			Estimate	d - Measured - Sur	veyed
Field Parameters (at time of sample)		Anal	Parameters		O	ther Para	nmeters		
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background: $\mathcal{U} \cdot \mathcal{O}$	ppm	SVOC	X	TPH DRO		Reactivity Sulfide/Cy	anide		
<i>V</i> * 0		Explosives	X	Chromium +6		Ignitability			
Sample: Û Ø	ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	X				QA Sam	ples	,
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID		N	ΙA
рН	units	TOC				Equipment Rinse ID		N	IA.
Turbidity	N.T.U.	Grain Size				Trip Blank ID		N	īA
Ne Re / Black STLT		e Description Sand 35% No Od	ac N	o Staving	Split Sample		Sample		1
No Plasheit Dry	10vc/3				Name: Agency/Com	ipany:		-	
					Address:				
								/	
						rided: MS/MSD Duplicate Same as Above - As		- Field Blanks	
Soil sample description should include:									
Munsell Color Odor Stainir	ng Texture	Sorting Plasticity Moist							
Water sample description should i	nclude:								
Color Odor Sheen Turbio	lity								
Logged By: //or) un les	ogged By: Mak Junky (Please Print) Reviewed by: FRAK ELUS (Please Print)								

			Field	d Sampling I	Report				
Location ID: LNWS		41 M-50		~	et poze			na Army Ammuniti ization of 14 RVAA	
Date: 11 01 0	4								
			Sa	mpling Inform	ation		·		
Source	Gro	undwater / Product		Surface Wa	ter -	Soil	ls / Sedimer	nts / Sludge	
Method	Bailer		Sam	ple Bottle	4	Scoop		Trowel	
	Pump		Bacc	on Bomb	/ 335	Bowl		Hand Auger	
						Push Probe	X	Plastic Liner	×
Type/Construction						Mattocks			
Miscellaneous	Well Purg Yes - No	ging Form						and the second s	
Sample Collection: 1515 hrs		Sample Type: C	omposite	Grab of increments taken:	30	Location	Plotted or Estimate	Map Staked in Fi	eld urveved
Sample Depth: O - FT (below surfac	ce) Decon: De	edicated	- Each Day Each	Location				
Field Parameters (at time of sample)		Ana	alytical	Parameters		О	ther Para	nmeters	
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background:	ppm	SVOC	×	TPH DRO		Reactivity Sulfide/Cy	anide		
0.0		Explosives	X	Chromium +6		Ignitability	•		
Sample: 0 . C) ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	X				QA Sam	ples	
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA
рН	units	TOC				Equipment Rinse HD			NA
Turbidity	N.T.U.	Grain Size		,		Trip Blank ID			NA
No odov	Sampl	e Description			Split Sample		Sample		/
TOUR 3/3 . NO	ode	or, non pla	84.c		Name:			1	
socred, ma	12,0	314 (80%) a_	4	Agency/Com Address:	pany:			36
clay	·								
O									
						ided: MS/MSD = Duplicate - Same as Above - As		Field Blanks	
								1894 TEST	
Soil sample description should inc		0 v 21 v 2							
Munsell Color Odor Staining Texture Sorting Plasticity Moisture Water sample description should include:									
Vater sample description should include: Color Odor Sheen Turbidity									
.11.	Allo	(Please Print)			Revie	wed by: ERIC,	ELUS		lease Print)
Logged By:									

Location ID: LNW 55-0	Yzm-s	6	Fiel	d Sampling I	Report			na Army Ammunition ization of 14 RVAAP	
			Sa	mpling Inform	ation				
Source	Gro	undwater / Product		Surface Wa		Soil	ls Sedimer	nts / Sludge	
Method	Bailer		Sam	ple Bottle	\mathcal{A}	Scoop		Trowel	T
	Pump		Bace	on Bomb		Bowl		Hand Auger	1
						Push Probe	X	Plastic Liner	X
Type/Construction						Mattocks		Slide hanner	X
Miscellaneous	Well Purg Yes - No	ing Form	,	ASSET THE SAME					
Sample Collection: <u>Of 25</u> hrs Sample Depth: <u>O > 1</u> FT (Sample Type: Co	fMT # a	MI - Grab of increments taken: - Each Day - Each	30 Location	Location	: Plotted or Estimate	n Map - Staked in Field d - Measured - Surve	eyed
Field Parameters (at time of sample)		Anal	lytical	Parameters		O	ther Para	ameters	_
PID / FID Readings:	·····	VOC		TPH GRO		Corrosivity			T
Background:	ppm	SVOC	Х	TPH DRO		Reactivity Sulfide/Cy	anide		
<i>.</i>		Explosives	Х	Chromium +6		Ignitability			
Sample: O. O	ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	X				QA Sam	ples	
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No	N	A
Sp. Conductancer	uMHOs	Cyanides				Duplicate ID		NA	<u>. </u>
рН	units	TOC				Equipment Rinse ID		NA	<u> </u>
Turbidity	N.T.U.	Grain Size				Trip Blank ID		NA	.
DR. Br. SILT GS Dry in Most Locations	/, w/ (e Description Lay 25% and Sav Clos No Staining		Socted	Split Sample Name: Agency/Com Address:	ID:	Sample		
No Plashery 7.5% - OLD BARN FOOTPRI		Mon-							
						Aided: MS/MSD - Duplicar Same as Above As		Field Blanks	
Soil sample description should inc Munsell Color Odor Stainin		Sorting Plasticity Moise	ture						
Water sample description should in		1 *****************************	•						
Color Odor Sheen Turbia									
Logged By: Map Dan L	~ <i>y</i>	(Please Print)			Revie	wed by: EGG	=LUS	(Please	Print)
ignature: MOCh	Dy _					nature: This	_	Date: 2/1/05	>

Location ID: PIRSS Date: ///6/	s -00 [i	M-SO_	Field	d Sampling	Report			na Army Ammuni ization of 14 RVA	
			Sa	mpling Inform	nation	41 - 11			
Source	Gro	undwater / Product		Surface W		So	ils) Sedimer	nts / Sludge	
Method	Bailer		Sam	ple Bottle	\mathcal{M}	Scoop		Trowel	
	Pump		Baco	on Bomb		Bowl		Hand Auger	
						Push Probe	X	Plastic Liner	1/
Type/Construction		/				Mattocks			1
Miscellaneous	Well Purg	ing Form	/		tion.		···········		
Sample Collection: <u>/2/5</u> 1 Sample Depth: <u>0 -/</u> F		Sample Type: (If MI, # o	e - MI Grab of increments taken - Each Day - Each		Location		Map Staked in F d - Measured - S	
Field Parameters (at time of sample)		An	alytical	Parameters		O	ther Para	meters	
PID / FID Readings:		voc	1	TPH GRO		Corrosivity			
Background:	ppm	SVOC		TPH DRO	·	Reactivity Sulfide/C			
C	20	Explosives	X	Chromium +6		Ignitability			
Sample: O c	.O ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	X				QA Sam	ples	
Temperature	2 °c	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides	1			Duplicate ID			NA
рН	units	TOC	1			Equipment Rinse ID			NA
Turbidity /	N.T.U.	Grain Size				Trip Blank ID			NA
No odor, N 7.5 yr 3/2 Low planic 500 d 5	Sample S Tall		i,	Sorted Clay201	Split Sample Name: Agency/Com Address:	ID:	Sample		
Soil sample description should in Munsell Color Odor Stain Vater sample description should	ning Texture	Sorting Plasticity Mois	sture		QA/QC Provi	ided; MS/MSD - Duplicate Same as Above - As	Trip Blanks Listed	Field Blanks	
Color Odor Sheen Turb	idity								
ogged By: TAMES PA	EMORRO	(Please Print)			Review	m. 10 1 1	- ELUS		- 11

Location ID: PIRSS Date: 11/16/	-002 04	M-So_	Field	d Sampling	Report			na Army Ammunit rization of 14 RVA		
	/	<u> </u>	Sa	mpling Inform	ation					
Source	Gro	undwater / Product	1	Surface Wa		Soi	Îs) Sedime	nts / Sludge	-	
Method	Bailer		Sam	ple Bottle		Scoop		Trowel		
	Pump		Baco	on Bomb	7 1	Bowl		Hand Auger		
						Push Probe 55	X	Plastic Liner	1	
Type/Construction					<u> </u>	Mattocks				
Miscellaneous	Well Purg	ging Form								
Sample Collection:/500hr Sample Depth: 0 - FT	s (below surface		If MI, # c	MI - Grab of increments taken: - Each Day - Each		Location	Plotted o	n Map Staked in Fi ed - Measured - S	eld urveyed	
Field Parameters (at time of sample)	(bolow Surran			Parameters Parameters	Location	0	ther Par	ameters		
PID / FID Readings:		VOC		TPH GRO		Corrosivity				
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cy	anide			
C	0,0	Explosives	X	Chromium +6		Ignitability				
Sample:	O ppm	Propellants		Nitrate			٠			
Water Level	, FT	TAL Metals	X				QA San	ıples		
Temperature	~ ℃	Pesticides/PCBs				MS/MSD	Yes / No	, /	NA	
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA	
рН	units	TOC				Equipment Riase ID		· · · · · · · · · · · · · · · · · · ·	NA	
Turbidity	N.T.U.	Grain Size				Trip Blank ID		**************************************	NA	
No odor, loya 3/4, non plast	Sample	Pescription A South	, c	3 /	Split Sample Name: Agency/Com Address:	ID:	Sample Top Plants	Field Blanks		
Soil sample description should inc Munsell Color Odor Stainin Vater sample description should i Color Odor Sheen Turbic ogged By:		Review	ved by: ERIC		Date: 2-1	Mease Print)				

Location ID: P/R55	5-003 H	8M-SD	Fiel	d Sampling	Report				ny Ammunition of 14 RVAAP	
			Sa	mpling Inform	ation				· · · · · · · · · · · · · · · · · · ·	
Source	Gro	undwater / Product	1	= Surface Wa	iter /	Soi	ls) Sedimer	ıts / Sh	adge	
Method	Bailer		Sam	ple Bottle	1	Scoop		Trov	vel	
	Pump		Baco	on Bomb		Bowl		Han	d Auger	
\ \						Push Probe S	5 X	Plast	tic Liner	X
Type/Construction	/					Mattocks				
Miscellaneous	Well Purg	ing Form	/							
Sample Collection: 1420 hrs. Sample Depth:	s (below surfac		MI Grab of increments taken - Each Day Each		Location	Plotted or Estimate	Map of - M	Staked in Field easured - Surve	eyed	
Field Parameters (at time of sample)		Ana	lytical	Parameters		О	ther Para	mete	rs	/
PID / FID Readings:		VOC		TPH GRO		Corrosivity				
Background:	ppm	SVOC	X	TPH DRO		Reactivity Sulfide/C	yanide			
Q.		Explosives	X	Chromium +6		Ignitability				
Sample: O, C) ppm	Propellants	X	Nitrate						
Water Level	FT	TAL Metals	X				QA Sam	ples		
Temperature	℃	Pesticides/PCBs	X			MS/MSD	Yes / No		N.	A
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA	
рН	units	TOC				Equipment Rinse ID			NA	
Turbidity /	N.T.U.	Grain Size				Trip Blank ID			NA	
No odor No yr sky non plum sed 101	Sample NOS	Description Taining Silt 65	Te g C	d lu15/		ID:		Field Bl	ank)	
							100			1
oil sample description should inc Munsell Color Odor Stainin Vater sample description should in Color Odor Sheen Turbia	ng Texture	Sorting Plasticity Mois	ture				EUC			

Q ₁ o	c = 0.7	\	Fiel	d Sampling	Report					
Location ID:	<u> 5-003</u>	<u>D-50</u>							y Ammunition of 14 RVAAP	
Date:	04									
			Sa	mpling Inform	ation					
Source	Gro	undwater / Product	4	Surface Wa	iter /	So	ils / Sedime	ıts / Slu	dge	
Method	Bailer		San	iple Bottle		Scoop		Trow	/el	
	Pump		Bac	on Bomb		Bowl		Hand	I Auger	
						Push Probe 55	X	Plasti	ic Liner	X
Type/Construction	/			/		Mattocks				
Miscellaneous	Well Purs	ging Form								
Sample Collection: 1420	_ hrs	Sample Type:) Discrete	Location	: Plotted or	ے Map	Staked in Field	<u> </u>	
Sample Depth: O-	FT (below surface	ce) Decon: I		of increments taken: - Each Day - Eacl	Location		Estimate	d - M	casured - Surv	eyed
Field Parameters (at time of sample)	O	ther Para	meter	rs						
PID / FID Readings:	ı	voc	X	TPH GRO		Corrosivity				
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/C	yanide			
	0,0	Explosives		Chromium +6		Ignitability				
Sample: O	,O ppm	Propellants		Nitrate						
Water Level	/ FT	TAL Metals					QA Sam	ples		
Temperature	℃	Pesticides/PCBs		,		MS/MSD	Yes / No		N	A
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID		_	NA	<u> </u>
pH /	units	TOC				Equipment Rinse ID			NA	.
Turbidity /	N.T.U.	Grain Size				Trip Blank ID		W	NA	an and an all a land
No dor	No Sta	Description			Split Sample		Sample			/
10 1R 3/6	. Me	17 POOT	1/2	orred	Name:					
non pla	Stri C		<u> </u>	^ ,	Agency/Com Address:	рапу:			7	
107 Wis	2 Sen_	1 20/2	- Cle	75/		142 (17)		/	4.00	
Taken From	n a depr	ression are	a.,		QA/QC Provi	ided: MS/MSD - Duplicate -	Trip Blanks	/ Field Bla	nks.	
	•				Parameters:	Same as Above - As	Listed			
Voc for full su	ite Samp	ole PIRSS-	003r	N-50						
oil sample description should	include:									
Munsell Color Odor Star	ining Texture	Sorting Plasticity Mo								
vater sample description shoul	ld include:			1000						
Color Odor Sheen Tur	rbidity									
ogged By: JAMIS	16400	10 (Please Print))		Review	ved by:EPI	L EL	US	(Please)	Print)
gnature: Alle	g dy	76			Signa	ature: <u>#2</u>	<u> </u>	Date	= 2/1/2	5

Location ID: PIRSS - 004M - 50 Ravenna Army Ammunition Plan Ravenna Army Ammunition Plan										
Date:								ization of 14 RVA		
Date.			Sa	mpling Inform	ation					
Source	Gro	undwater / Product /) a	Surface Wa		Soi	ls) Sedimer	its / Sludge		
Method	Bailer		Sam	ple Bottle	\mathcal{M}	Scoop		Trowel		
	Pump		Baco	on Bomb		Bowl		Hand Auger		
						Push Probe 55	X	Plastic Liner	X	
Type/Construction						Mattocks				
Miscellaneous	Well Purg	ging Form								
Sample Collection: 0735 hrs Sample Type: Composite - MI Grab If MI, # of increments taken: 30 Location: Plotted on Map Staked in Field Estimated - Measured - Surveyed										
Sample Depth: FT (below surface) Decon: Dedicated - Each Day - Each Location Estimated - Measured - Surveyed										
Field Parameters (at time of sample)		Anal		0	ther Para	nmeters				
PID / FID Readings:		VOC	TPH GRO		Corrosivity					
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cy	anide			
0.0		Explosives	X	Chromium +6		Ignitability				
Sample: O O	ppm	Propellants	,	Nitrate						
Water Level	FT	TAL Metals	X				QA Sam	ples		
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA	
Sp. Conductance:	uMHOs	Cyanides		-		Duplicate ID			NA	
рН	units	TOC				Equipment Rinse ID			NA	
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA /	
No odor, No 10 yr 4/6 non plant Sad 15	Sample	<u> </u>	υ <u>ς</u> α , C	sted	Split Sample Name: Agency/Con Address:	e ID:	Sample			
	•		·	QA/QC Pro Parameters:	vided: MS/MSD - Duplicate - Same as Above - As	Trip Planks . Listed	Field Blanks			
Soil sample description should inc	clude:									
Munsell Color Odor Stainii	ng Texture	Sorting Plasticity Moist								
Water sample description should i										
Color Odor Sheen Turbio										
Logged By: James Han	wed by:	- EUK	·	Please Print)						
Signature: And	2-4	, 76			Sign	nature: <u>SPS</u>	<u>し</u>	Date:	05_	

Location ID: PIRS	Location ID: PIRSS-005M-50 Field Sampling Report Ravenna Army Ammunition Plant Characterization of 14 RVAAP AOCs										
Date: 11-16-0	04						Character	ization o	f 14 RVAAP	AOCs	
			Sa	mpling Inform	ation						
Source	Gro	undwater / Product		- Surface Wa		So	oils /)Sedime	nts / Slud	ge		
Method	Bailer		Sam	ple Bottle	/	Scoop		Trowe	l		
	Pump		Bac	on Bomb		Bowl		Hand A	Auger		
						Push Probe 5	5 X	Plastic	Liner	X	
Type/Construction						Mattocks					
Miscellaneous	Well Purg Yes - No	ging Form									
Sample Collection: 1025	hrs	- MI Grab	30	Location			taked in Field				
Sample Depth:	FT (below surface	ce) Decon: D		of increments taken: - Each Day - Each			Estimate	a - Mea	sured - Surve	eyed	
Field Parameters (at time of sample)		An	Parameters			Other Para	ameters	· · · · · · · · · · · · · · · · · · ·			
PID'/ FID Readings:	,	voc		TPH GRO		Corrosivity					
Background:	ррт	SVOC		TPH DRO		Reactivity Sulfide/C	yanide				
<u> </u>	$\mathcal{O}^{\mathcal{O}}$	Explosives	X	Chromium +6		Ignitability					
Sample: O.	O ppm	Propellants		Nitrate							
Water Level	FT	TAL Metals	X				QA Sam	ples			
Temperature	℃	Pesticides/PCBs				MS/MSD	Yes / No		Ñ	<u> </u>	
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID	PIRSS-	005M	-DUP NA		
pH /	units	TOC				Equipment Rinse ID			NA NA		
Turbidity /	N.T.U.	Grain Size				Trip Blank ID			(NA	ン	
No odor, 1	Sample Star	Description			Split Sample	ID: P/R55-6	t Sample 205 M	-50°			
10 yr 3/2	+ , w	2015/25	01/	ed		John Jeni					
homp lastics	SIL	80 / 250	<i>₽</i> ~	15 /	Address:	DE MARTIN W					
clay 5/						SYLLIE KY			· FUAVI		
	. 1 . 1		1		OA/OC Prov	ided: MSAASD - Duplicate	- Trip Blanks -	Field Blank	S		
Two bullets	nonced	in sample	e du	ring	Parameters:	(Same as Above) As	Listed				
collection.					1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1	The state of the s					
Soil sample description should	include:										
Munsell Color Odor Stat		1 X X X X X X X X X X X X X X X X X X X									
Vater sample description shoul	ld include:										
Color Odor Sheen Turbidity											
ogged By:	anorro	(Please Print)			Reviev	wed by: EAC	5M≥		(Please I	Print)	
ignature:	(3)	2			Sign	ature: 562	L	Date:	2/1/05		

Location ID: PIRSS - 0		1-50	Fiel	d Sampling	Report			ua Army Ammu ization of 14 RV	
			Sa	mpling Inform	ation				
Source	Gro	undwater / Product		Surface Wa	iter /	Soi	ils Sedimer	nts / Sludge	
Method	Bailer		Sam	ple Bottle	A	Scoop		Trowel	
	Pump		Baco	on Bomb	/	Bowl		Hand Auger	
						Push Probe 5	SX	Plastic Liner	X
Type/Construction	/			1		Mattocks			
Miscellaneous	Well Pur	ring Form	/						•
Sample Collection: 1353 hrs		Sample Type: Co	mposite	MI - Grab	30	Location	: Plotted or	1 Map Staked in d - Measured -	Field
Sample Depth: O T FT (below surfa	ce) Decon: Dec	MI, # of	of increments taken: - Each Day - Each	Location		Estimate	d - Measured -	Surveyed
Field Parameters (at time of sample)		Anal	lytical	Parameters		О	ther Para	meters	
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cy	vanide		-
0.4	\mathcal{I}	Explosives	X	Chromium +6		Ignitability			
Sample: O.O	ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	X				QA Sam	ples	
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA
рН	units	TOC				Equipment Rinse ID			NA
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA
No odor, Nos	Sample), well	ed	4 * /	Split Sample Name: Agency/Com	D:	Sample		
non plass	<u></u>	- 25/	- 2	sadlo	Address:	ided; MS/MSD - Duplicate :			
		·				Same as Above - As			
oil sample description should incl	ude:								
Munsell Color Odor Staining		/							
ater sample description should in	clude:								
Color Odor Sheen Turbidi	ty						100 pt 10		
	720	(Please Print)					EWIS	-1:	(Please Print)
gnature: June 5.		/			Sign	ature: 2020		Date:	105

Location ID: <u>LL 555 - COIM - SO</u> Field Sampling Re Date: <u>12-10ou - 04</u>						CI		a Army Ammunitio	
Date: 12-1000	04								
			Sai	mpling Informa	ation				
Source	Grou	ındwater / Product		Surface Wat	ter	Soils /	Sedimer	ts / Sludge	
Method	Bàiler		Samı	ole Bottle		Scoop		Trowel	
	Pump		Baco	n Bomb		Bowl		Hand Auger	
						Push Probe	1	Plastic Liner	1
Type/Construction						Mattocks			
Miscellaneous	Well Purg Yes - No	ing Form							
Sample Collection: 1405 hrs Sample Type: Composite - MI - Grab If MI, # of increments taken: Decon: Dedicated - Each Day Each						Location	Plotted or	Map - Staked in Field - Measured - Sur	ld rveved
Sample Depth: FT	(below surfac		Listinate	u - Modsureu - Du	·voyea				
Field Parameters (at time of sample)		Anal		Oth	er Para	meters			
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cyan	ide		
e.	9	Explosives	1	Chromium +6		Ignitability			
Sample: Q) ppm	Propellants		Nitrate	1				
Water Level	FT	TAL Metals	/			Q	A Sam	ples	
Temperature	°C	Pesticides/PCBs	, .			MS/MSD Y	es / No)	NA
Sp. Conductance:	иMHOs	Cyanides				Duplicate ID		-1	NA
рН	units	TOC				Equipment Rinse ID		1	NA
Turbidity	N.T.V	Grain Size				Trip Blank ID		<u> </u>	NA
Sample Description No Odor, Some Crauge + grey with the second of the s					Address:	ipany: v ided: MS/MSD - Duplicate - T	rip Blanks	Field Blanks	
Logged By: Wichael Sauge Jak (Please Print) Reviewed by: ER4 E						EU15		ease Print)	
Signature: Michal)	71.106/1					nature: SRELL		Date: 23	

.

	Location ID: 12555-002M-50 Field							a Army Ammunition zation of 14 RVAAP	
Date: 12 Nov	04								
			Sai	mpling Informa	ition				
Source	Grou	undwater / Product		Surface Wat	er	Soil	Sedimen	ts / Sludge	
Method	Bailer		Samj	ple Bottle		Scoop		Trowel	
	Pump		Baco	n Bomb		Bowl		Hand Auger	
·						Push Probe		Plastic Liner	
Type/Construction	/					Mattocks			
Miscellaneous	Well Purg Yes - No	ing Form	/				-		
Sample Collection: 105 hrs	- MI - Grab	30	Location:	Clotted or	Map Staked in Field	D			
Sample Depth: FT (below surface)									veyeu
Field Parameters (at time of sample)		Anal	Parameters		Ot	ther Para	meters	-	
PID / FID Readings:		voc		TPH GRO		Corrosivity			-
Background:	ррт	SVOC		TPH DRO		Reactivity Sulfide/Cy	anide		
0	, O	Explosives	/	Chromium +6		Ignitability			
Sample:	O ppm	Propellants		Nitrate	\				
Water Level	FT	TAL Metals					QA Sam	ples	
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No	(I	NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID	LL535	-002M - DUPN	A
рН	units	TOC				Equipment Rinse ID		<u> </u>	
Turbidity	N.T.U.	Grain Size				Trip Blank ID		<u>A</u>	A)
Sample Description Soil sample description should include: Munsell Color Odor Staining Texture Sorting Plasticity Moisture Water sample description should include: Color Odor Sheen Turbidity					QA/QC Pro	·D: LL5 35 - Oc John Jent	Louis v 2 1216 202 Trip Blanks	ille para	
ogged By: Michael Samelak (Please Print) Reviewed by: Please Print) (Please Print)									
Signature: Wishaul		Sign	nature: Als	L	Date: 2/3/9	5			

Location ID: 4555	-003/	N-50	Fiel	d Sampling	Report				y Ammunitio of 14 RVAAI	
			Sa	mpling Inform	ation					
Source	Gro	undwater / Product		Surface Wa	iter	Soi	l Sedime	ats / Slu	ıdge	
Method	Bailer	s. of the state of	San	iple Bottle		Scoop		Trow	vel .	
	Pump	and the state of t	Bac	on Bomb		Bowl		Hand	i Auger	
	p. p	, 				Push Probe	\top_{\times}	Plast	ic Liner	X
Type/Construction	ger de la companya de					Mattocks				
Miscellaneous	Well Pur							L	,	
Sample Collection: 1100		Sample Type:	Composite If ML# Dedicated	e - MI - Grab of increments taken: Each Day - Eacl	30 Location	Location	Plotted of	n Map C	Staked in Fiel easured - Sur	ld rveyed
Field Parameters (at time of sample)				Parameters		• O	ther Para	ımete	rs	
PID / FID Readings:		VOC		TPH GRO		Corrosivity				
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cy	anide	Ĵ		
	0.0	Explosives	X	Chromium +6		Ignitability	· · · · · · · · · · · · · · · · · · ·			
Sample: (0.0 ppm	Propellants		Nitrate	У.		para de la composición dela composición de la composición de la composición dela composición dela composición dela composición de la composición de la composición de la composición de la composición dela composición de la composición dela composición del			
Water Level	/ FT	TAL Metals	X			ge ^{ge}	QA Sam	ples		
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No			NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			N	١A
рН	units	TOC				Equipment Rinse ID			N	JA
Turbigity	N.T.U.	Grain Size				Trip Blank ID			N	ĪΑ
104R3/3	Sampl	e Description				DPAR	Sample			
NO caps,	0 1105	taining 2	me	rist	Split Sample					
man plan	hc,	losted,	5,11	60		ipany;			to see a see	
- Cler 25	<u> </u>	net egran	ul p	57	Address:					
——————————————————————————————————————	· , , , , , , , , , , , , , , , , , , ,		17	· · · · · · · · · · · · · · · · · · ·						
					QA/QC Prov	rided: MS/MSD - Duplicate -	Trip Blanks -	No. of the page 727 344	anks	
					Parameters:	Same as Above - As	Listed			
						1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
oil sample description should	include:									
Munsell Color Odor Stat	ining Texture	Sorting Plasticity Mo	isture	,						
Vater sample description shoul	ld include:									
Color Odor Sheen Tur	rbidity									
ogged By: Shill Van	Toller	Vina G(Please Print	:)		Revie	wed by: ERIC	-EWS	· ************************************	(Plea	ise Print)

Signature:

Signature: 45

Date: 2/3/05

Location ID:	5-00	4M-50	Field	d Sampling F	Report			na Army Ammuniti ization of 14 RVAA	
Date:	/90 ر								
			Sa	mpling Informa	ition				
Source	Grou	undwater / Product		Surface Wat	er	Eoil s	SySedimen	ıts / Sludge	
Method	Bailer		Sam	ple Bottle		Scoop		Trowel	
	Pump		Baco	on Bomb		Bowl		Hand Auger	
				/		Push Probe	-	Plastic Liner	-
Type/Construction									
Miscellaneous	Well Purg Yes - No	ing Form							
Sample Collection: 1020 hrs Sample Type: Composite - MI - Grab Loca								Map Staked in Fie	ild
Sample Depth: FT ((below surfac	ce) Decon: De		of increments taken: - Each Day Each			Estimate	d - Measured - Su	rveyed
Field Parameters Analytical Parameters Other Parameters (at time of sample)									
PID / FID Readings:	ppm	VOC		TPH GRO		Corrosivity			
Background:	SVOC		TPH DRO		Reactivity Sulfide/Cya	anide			
Q	0,0	Explosives		Chromium +6		Ignitability			
Sample: Q. C	2 ppm	Propellants		Nitrate	✓				
Water Level	FT	TAL Metals					QA Sam	ples	
Temperature	°c	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA
рН	units	TOC				Equipment Rinse ID			NA
Turbidity	N.T.U.	Grain Size			ninganini angganganin (2000)	Trip Blank ID		1	NA
Soil sample description should income Munsell Color Odor Staining Water sample description should in Color Odor Sheen Turbic	Sclude: Ing Texture include:	1+70/ ag 25/ ag 5/	hysested		ID:		Field Blanks		
11 2 5	gged By: Michael Samelak (Please Print) Reviewed by: ERIC FUIS (Please Print)								
gged By: Michael Samelak (Please Print) Reviewed by: FRIC FUIS (Please Print) gnature: Michael BAL Signature: Signature: Date: 2/3/5									

			Fiel	d Sampling	Report				
Location ID: LL 5.5S -				- Sumpring	report.			a Army Ammunit ization of 14 RVA	
Date: 19 NOV D	4				·			antion 01 14 16 7 22	u Aocs
			Sa	mpling Inform	ation				All Landson
Source	Gro	oundwater / Product		Surface Wa	iter	So	ils / Sedimen	ts / Sludge	
Method	Bailer		San	iple Bottle		Scoop		Trowel	V
	Pump		Bac	on Bomb	/	Bowl		Hand Auger	
				10 X 20 M		Push Probe		Plastic Liner	V
Type/Construction				700		Mattocks (NOT INCL	DEP V		
Miscellaneous	Well Purging Form Yes - No								
Sample Collection: 1415 hr	S	Sample Type: (Composite	MI Grab	30	Location	: Plotted on	Map - Staked in Fi	eld
Sample Depth: 0-05 FT	(below surfa	ce) Decon: D	If MI, # o edicated	of increments taken: - Each Day Each		•	Estimated	I - Measured - Si	irveyed
Field Parameters (at time of sample)		An	alytical	Parameters		О	ther Para	meters	
PID / FID Readings:		voc		TPH GRO		Corrosivity			
Background: O. O	ppm	SVOC	V	TPH DRO		Reactivity Sulfide/Cy	anide		
0.0		Explosives	V	Chromium +6		Ignitability			
Sample: 0.6	ppm	Propellants	1	Nitrate					
Water Level	FT	TAL Metals	V				QA Samj	oles	
Temperature	℃	Pesticides/PCBs	1			MS/MSD	Yes / No	(NA)
Sp. Conductance:	nMHOs	Cyanides	ļ			Duplicate ID			NA)
pH	units	TOC				Equipment Rinse ID	LL500-0	OSM-ER 1	NA.
Curbidity	N.T.U.	Grain Size	_		48043044	Trip Blank ID	TRIPE	with the	IA)
NO ODOR NO ST	Sample [AIN] N.G.	Description			Split Sample		Sample	T. Make	
21518 815					Name:				
7,5/R 3/2				moist	Agency/Com Address:	pany:			10.15
	SILMY ?	3AND W/TRAC	ie Ci	Ay				7	
		•		,					
					QA/QC Prov Parameters:	ided: MS/MSD - Duplicate = Same as Above - As	Trip Blanks Listed	rield Blanks	
						Section 2013 Square and Track		7.53.75	
il sample description should incl		G. C. M. Torres		11.11				1984 1986	
Munsell Color Odor Staining ater sample description should in	***								
wer sample description should in Color Odor Sheen Turbidi		7							
711 / /	y 5- /	h							
gged By: Thehael	lanie(w	(Please Print)				ved by: EUCE	145	.1.1.	ase Print)
nature: Welland	1/1/6	4			Signa	ature:		_ Date: 2 3 5	2

			Fial	J Campling	Thomas web				
Location ID: 1555-0	05D-	-50	r ici	d Sampling	Керогі			na Army Ammun ization of 14 RVA	
Date:			~						- - 11 - 1
			Sa /	mpling Inforn					
Source Method	<u> </u>	undwater / Product		Surface W	ater		ils / Sedimer	1	1.
Meinoq	Bailer			ple Bottle	7	Scoop		Trowel	
	Pump		Bac	on Bomb		Bowl		Hand Auger	
		/		1		Push Probe		Plastic Liner	
Type/Construction				7		Mattocks			
Miscellaneous	Well Pur	ging Form	/						
Sample Collection: 1345 hrs				- MI Grab		Location	: Plotted or	n Map Staked in l	Field
Sample Depth: 0-0-5 FT (below surfa			of increments taken - Each Day - Eac			Estimate	d - Measured -	Surveyed
Field Parameters (at time of sample)		Ana	lytical	Parameters		O	ther Para	meters	
PID / FID Readings:		VOC	V	TPH GRO		Corrosivity			
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/C	yanide		
0.0	•	Explosives		Chromium +6		Ignitability			
Sample: (). 6	ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals					QA Sam	ples	
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No	NA	NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID	N	4	NA
рH	units	TOC				Equipment Rinse ID	4500	-005D-ER	ζ NA
Turbidity	N.T.U.	Grain Size				Trip Blank ID	TRIP	BLANK	NA
NO ODOR NO STAI	Sample	Description			Split Sample		Sample		
	14(140)				Name:	ID:			1
(SAME AS LL	5 5 SS -	005M - 50			Agency/Com Address:	pany:		100 mg	Anna a
					Address:				
								/	
		٠.				ided: MS/MSD = Duplicate = Same as Above = As		Field Blanks	
					Talamettis.	Table 13 Above 13	Linea		
oil sample description should incli	ude:								
Munsell Color Odor Staining	Texture	Sorting Plasticity Moist	ure						
ater sample description should in	clude:								
Color Odor Sheen Turbidii	ty								
gged By: NIESH SHRIN	GARPOR	(Please Print)	•		Reviev	ved by: EAC	FUIS		(Please Print)
mature: Whemanhure	. د				Sian	ature: ZKZ		Date: 23	125

11565	- MTGN	1 - 50	Fiel	d Sampling l	Report					
Location ID:	- 000m								y Ammunition of 14 RVAAP	
Date:	24								 	
			Sa	mpling Inform	ation	.V	,			
Source	Gro	undwater / Product	4	Surface Wa	ter /	So	ils / Sedimer	its / Slu	dge	
Method	Bailer		Sam	ple Bottle		Scoop		Trow	el —————	ļ
	Pump		Bac	on Bomb		Bowl		Hand	Auger	
						Push Probe	V	Plasti	c Liner	1
Type/Construction						Mattocks				
Miscellaneous	Well Purging Form Yes - No									
Sample Collection: 1440 F	nrs · Γ (below surfac	e - MI - Grab of increments taken: - Each Day - Each	30 Location	Location	Plotted of Estimate	Map d - Me	Staked in Field easured - Surve	eyed		
Field Parameters (at time of sample)			Parameters		O	ther Para	meter	's	<i></i>	
PID / FID Readings:		voc		TPH GRO		Corrosivity				
Background:	ррт	SVOC		TPH DRO		Reactivity Sulfide/C	yanide			
Q.	()	Explosives	V	Chromium +6		Ignitability			-	1
Sample: O.	ppm	Propellants		Nitrate	V					
Water Level	FT	TAL Metals	V				QA Sam	ples		
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		N	A
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA	
рН	units	TOC				Equipment Rinse ID			NA	
Y urbidity	N.T.U.	Grain Size				Trip Blank ID		500 000 000 000 000 000	NA	
NO ODOR ORA	Sample NGE /GR	e Description EY MOTILES			Split Sample	· · · · · · · · · · · · · · · · · · ·	Sample			
104R 3/0	1m		26	Ø	Name:					
non vias	Fi				Agency/Com Address:	pany:		/		
112	7	<u> </u>		· · · · · · · · · · · · · · · · · · ·	21 E S 2 1 Tonio	THE STATE OF THE S	,			
	. ^ ~	-								
Q	s Cre	り			QA/QC Prov Parameters:	ided: MS/MSD - Duplicate Same as Above - As		Field Bla	riks	
7 0	net	51								
		- <u>\</u>							110	
Soil sample description should i	nclude:									
Munsell Color Odor Stair	ning Texture	Sorting Plasticity Moi.	sture							
Water sample description should							100			
Color Odor Sheen Turk					/					
ogged By: NIESH 5H ignature: Whangohu	RINGARPO	(Please Print)			Revie	wed by: Feic	Fus		(Please	Print)
ignature: Woungashe	سنعان				Sion	nature:	<u>ال</u> الـ	Data	e: 2 3 -5	J

Location ID: 155 Date: 12 NOV	04	7M-50	Fiel	d Sampling	Report			na Army Ammunition ization of 14 RVAAP	
			Sa	mpling Inform	nation				
Source	Gro	undwater / Product		Surface W	ater	Soi	ls Sedimer	ts / Sludge	
Method	Bailer	- and a second	Sam	ple Bottle		Scoop		Trowel	
	Pump	and the second second second second	Bac	on Bomb		Bowl		Hand Auger	
	the market and	or professional and the second and t		San Land		Push Probe	X	Plastic Liner	1
Type/Construction	and the same of th			144		Mattocks	$\frac{1}{\lambda}$	<u> </u>	1
Miscellaneous	Well Purg Yes - No		Ż					, .	
Sample Collection 15 hrs Sample Depth: FT (Sample Type: (If MI, # o	e MI - Grab of increments taken - Each Day - Eac		Location	Plotted or Estimate	Map Staked in Field d - Measured - Surv	D veyed
Field Parameters (at time of sample)		An	alytical	Parameters		· 0	ther Para	meters	پريستندار
PID / FID Readings:		VOC		TPH GRO		Corrosivity			7
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cy	anide		+
(2.0	Explosives	X	Chromium +6		Ignitability		- James Alexander	+
Sample: O2	O ppm	Propellants	<u> </u>	Nitrate			are deliverable and	<u>, , , , , , , , , , , , , , , , , , , </u>	-
Water Level	FT	TAL Metals	X				QA Sam	nles	
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No	·	JA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID	···	N.A	 4
рН	units	TOC				Equipment Rinse ID		N.A	4.
Turbidity	N.T.U.	Grain Size				Trip Blank ID		N.A	4
104R 3/4 NO Odor, A Poolly soste Sand Gys	77 × 1	Description ining mining mini	013k C, 3	7	Name: Agency/Com Address: QA/QC Prov	ID: pany; http://ded.ws/MSD-Duplicate Same as Above - As	Sample Trip Blanks		
Soil sample description should incl Munsell Color Odor Staining Vater sample description should in Color Odor Sheen Turbidi	g Texture	Sorting Plasticity Moi.	sture	•					
ogged By: Shawaignature:	19his	(Please Print)			Reviev Signa	ved by: Epic ature: M2	yours the	Please Date: 2/3/05	

Location ID: LL5 S	<u>g_008 n</u>	N-50	Fiel	d Sampling I	Report	C		na Army Ammu ization of 14 RV			
Date:			Sa	mpling Inform	ation						
Source	Gro	undwater / Product /		Surface Wa		Soils	Sedime	nts / Sludge			
Method	Bailer		**************************************	ple Bottle		Scoop	Trowel				
	Pump		- 2000000	on Bomb		Bowl		Hand Auger			
				4		Push Probe	X	Plastic Liner			
Type/Construction	+			7		Mattocks	 				
Miscellaneous	Well Pury Yes - No		7				L	<u></u>			
Sample Collection: 1500 Sample Depth: 0 -1		Sample Type: Co	f MI, # o	e - MI - Grab of increments taken: - Each Day Each		Location	Plotted o Estimate	n Map (Staked i	n Field - Surveyed		
Field Parameters (at time of sample)		Ana	lytical	Parameters		e Oth	er Par	ameters			
PID / FID Readings:		VOC	OT	TPH GRO		Corrosivity			/		
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cyar	nide		-		
4	2.9	Explosives	X	Chromium +6		Ignitability					
Sample: Q	.O ppm	Propellants		Nitrate	X						
Vater Level	FT	TAL Metals	X			QA Samples					
`emperature	°C	Pesticides/PCBs					Yes / No		NA		
p. Conductance;	uMHOs	Cyanides				Duplicate ID		·	NA		
н	units	TOC				Equipment Rinse ID		· · · · · · · · · · · · · · · · · · ·	NA		
urbidity	N.T.U.	Grain Size				Trip Blank ID			NA		
NO Odor		e Description	16.20	FO'/,	Address: QA/QC Prov	Spirts:	rup Blanks	Field Blants			
Munsell Color Odor Stater sample description should description should Color Odor Sheen Tu	nining Texture		ture	·							
gged By: Shallam	Jahelia	(Please Print)				wed by: FLY hature: Mal	EULS		(Please Print		
gnature:								Date: 2			

Location ID:	Location ID: <u>LL5</u> 55 - 00 9M - 50 Date: 15 Nov 04			l Sampling R	leport		Ravenna Army Ammunition Plan Characterization of 14 RVAAP AOC			
			Sa	mpling Informa	ition					
Source	Gro	undwater / Product		Surface Wat		Soils	7 Sedimen	its / Sludge		
Method	Bailer		Sam	ple Bottle		Scoop		Trowel		
	Pump		Bacc	n Bomb	\mathcal{I}	Bowl		Hand Auger		
				/		Push Probe		Plastic Liner	1/	
Type/Construction					- F	Mattocks				
Miscellaneous	Well Purg Yes - No	ging Form	1							
Sample Collection: <u>0853</u> hrs Sample Depth: <u>0</u> -1 FT (Sample Type: Con If ce) Decon: Dec	mposite MI, # o licated	- MI - Grab of increments taken: - Each Day Each	30 Location	Location		Map Staked in Fie d - Measured - Su			
Field Parameters (at time of sample)	Anal	ytical	Parameters		Oti	ier Para	nmeters			
PID / FID Readings:		voc		TPH GRO		Corrosivity				
Background:	SVOC		TPH DRO		Reactivity Sulfide/Cya	nide				
Q.	0	Explosives		Chromium +6		Ignitability				
Sample: C.	O ppm	Propellants		Nitrate						
Water Level	FT	TAL Metals					QA Sam	ples		
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA	
Sp. Conductance:	иMHOs	Cyanides				Duplicate ID)	ΝA	
рН	units	TOC				Equipment Rinse ID]	NA	
Tyrbidity	N.T.U.	Grain Size				Trip Blank ID			NA	
10 Odor, Grang 1048 3/60 m 81/4 60/, 2 C		e Description 2 y wolles Soxted	- w	ed y last of	Split Sample Name: Agency/Com Address: QA/QC Prov Parameters:	ipany:	Frip Manks	Field Blanks		
Soil sample description should include: Munsell Color Odor Staining Texture Sorting Plasticity Mowater sample description should include: Color Odor Sheen Turbidity										
Logged By: Michael Signature: The Charles	Samela De 1	(Please Print)				wed by: EUC 6	<u>EUUS</u>	Date: 2 3	ease Print)	

Location ID:	55-0101	1-50	Fiel	d Sampling I	Report			na Army Ammuni	
Date: 15 No.0	04						Character	rization of 14 RVA	AP AOCs
			Sa	mpling Inform	ation				
Source	Gro	undwater / Product		Surface Wa	ıter	So	oils) Sedimer	nts / Sludge	
Method	Bailer		Sam	iple Bottle	\mathbb{Z}	Scoop		Trowel	
	Pump		Baco	on Bomb	/	Bowl		Hand Auger	
						Push Probe	N	Plastic Liner	
Type/Construction		/				Mattocks			
Miscellaneous	Well Purg Yes - No								
Sample Collection: 0923 Sample Depth: 0 -/	5 hrs	Sample Type: C	If MI, # c	e - MI Grab of increments taken: - Each Day Each	50 h Location	Location	t: Plotted or Estimate	n Man - Staked in F	ield Surveyed
Field Parameters (at time of sample)				l Parameters		C	Other Para	ameters	
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/C	yaride		
	00	Explosives	1	Chromium +6	·	Ignitability			
Sample:) , O ppm	Propellants		Nitrate					
Water Level	fπ	TAL Metals	1				QA Sam	ıples	
Temperature	°c	Pesticides/PCBs				MS/MSD	Yes / No)	(NA)
Sp. Conductance:	иMHOs	Cyanides				Duplicate ID	LL555-1	OLOM-DUP	NA
рН	units	TOC				Equipment Rinse ID			(NA)
Turbidity	N.T.U.	Grain Size				Trip Blank ID			(NA)
No Odar, 5 10 y R 3/6, 10 y R 3/6, 10 y R 3/6, Soll sample description should	ned i	e Description Puge Wattles Process Plant From	0		Name: Agency/Com Address: (600) QA/QC Prov	Spin Spin Spin Spin Spin Spin Spin Spin	t (c Lowissil He kine 222 Trip Blanks -	ELRL-EK-E le > JE PARA	
Soil sample description should Munsell Color Odor St. Water sample description should Color Odor Sheen Tr	taining Texture	Sorting Plasticity Moi	sture						
Logged By: <u>Michael</u>		Oak (Please Print)	•		Revie	wed by: EKIC	FWS	0	Please Print)
Signature: The hard	1 1	1				nature: 546		Date: 2/3	2/05

Location ID: <u>LL555</u> Date: <u>12-Nove</u>	-011	M-50		Field	l Sampling I	Report			na Army Ammuniti ization of 14 RVAA	
Date: 12-Nov	,-04	<u>/</u>						Character	24404 01 14 10 7121	
				Sa	mpling Inform	ation				
Source	Gro	undwater / Produc	:t		Surface Wa	ter	Soils	Sedimen	its / Sludge	
Method	Bailer	·		Sam	ple Bottle		Scoop		Trowel	
	Pump			Bacc	n Bomb		Bowl		Hand Auger	
							Push Probe		Plastic Liner	
Type/Construction							Mattocks			
Miscellaneous	Well Purg Yes - No	ing Form		/						
Sample Collection: 12/0 hrs	3	Sample Ty			- MI Grab	32	Location(Plotted or	n Map Staked in Fie d - Measured - St	
Sample Depth: De-	(below surfac	ce) Decor			- Each Day Each			Estillate	d - Measured - St	ii veyeu
Field Parameters (at time of sample)			Anal	ytical	Parameters		Ot	her Para	nmeters	
PID / FID Readings:		VOC			TPH GRO		Corrosivity			
Background:	ppm	SVOC			TPH DRO		Reactivity Sulfide/Cya	mide		
Q.	0	Explosives			Chromium +6		Ignitability			
Sample: Q	р ррт	Propellants			Nitrate					
Water Level	FT	TAL Metals						QA Sam	ples	
Temperature	°C	Pesticides/PCBs					MS/MSD	Yes / No		NA
Sp. Conductanee:	uMHOs	Cyanides		,			Duplicate ID			NA
рН	units	TOC					Equipment Rinse ID			NA
Turbidity	N.T.U.	Grain Size					Trip Blank ID			NA
No Odor, Son 10 YR 3/6 Complantio	Sample on Or	e Description	× 2	- w	offles 1	Split Sample Name: Agency/Com Address:	D :	Sample		
	O	-cly) [Z0)	/ ,	-		/		
	1,		ided: MS/MSD - Duplicate Same as Above - As I							
Soil sample description should in	clude:									
Munsell Color Odor Staining Texture Sorting Plasticity Moisture										
Water sample description should i	include:				,					
Color Odor Sheen Turbi	dity									
Logged By: Michael	Sauce	Please	Print)			Revie	wed by: FRICE	=WS	(P)	lease Print)
Signature: Michael	100					Sign	ature: <u>Wh</u>		Date: 2 3	<u>-5_</u>

Location ID: 1555	-0121	<u>M-50</u>	d Sampling I	Report			a Army Ammuni ization of 14 RVA		
			Sa	mpling Inform	etion				
Source	Gro	undwater / Product	Sa.	Surface Wa		Soi	ls /Sedimen	rts / Sindge	
Method	Bailer	1/	Sam	ple Bottle	1. 1/	Scoop		Trowel	
	Pump			on Bomb	\mathcal{A}	Bowl		Hand Auger	
						Push Probe		Plastic Liner	+
Type/Construction					1 447	Mattocks		<u> </u>	
Miscellaneous	Well Purg Yes - No	ing Form							
Sample Collection: 1025 hrs Sample Depth: 0-/ FT			МІ, # с	MI Grab of increments taken: - Each Day Each		Location	: Plotted or Estimate	Map Staked in F	ield Surveyed
Field Parameters (at time of sample)		Anal	Parameters		o	ther Para	meters		
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background:	ppm	SVOC	/	TPH DRO		Reactivity Sulfide/Cy	vanide		
· · · · · · · · · · · · · · · · · · ·	.0	Explosives	/	Chromium +6		Ignitability			
Sample:	O ppm	Propellants	/	Nitrate	/				
Water Level	EP	TAL Metals					QA Sam	ples	
Temperature	°c	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA
рН	units	TOC				Equipment Rinse ID			NA
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA
No Odar, Son 10 YR 3/4 Nam Mask Soil sample description should income Munsell Color Odor Staining	1000		SO C ();	315%		ID:		Field Blanks	
Water sample description should i		soring rushelly Moist	u1 C						
Color Odor Sheen Turbio									
Logged By: Michael	Same	(Please Print)			National de la facilité des la facilité de la facil	wed by: PLICE			(Please Print)

Location ID: <u>LL555</u> Date: <u>/500</u>	-012	<u>2D-50</u>	Field	d Sampling R	leport			na Army Ammunitio ization of 14 RVAAF	
Date: 15 Nov	04							Intiva C. Z.	
			Sa	mpling Informa	ition				
Source	Grou	undwater / Product		Surface Wate	er	Soil	> / Sedimen	ts / Sludge	
Method	Bailer		Sam	ple Bottle		Scoop		Trowel	
ļ	Pump		Bacc	on Bomb		Bowl		Hand Auger	
					Plastic Liner				
Type/Construction						Mattocks			
Miscellaneous	Well Purg Yes - No	ing Form							
Sample Collection: 1025 hrs	/	Sample Type: Con				Location:		Map Staked in Fiel	
Sample Depth: FT (below surfac			of increments taken: - Each Day - Each			Estimated	d - Measured Sur	veyea
Field Parameters (at time of sample)		Analy	ytical	Parameters		Of	ther Para	meters	
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background: O.C) ppm	SVOC		TPH DRO		Reactivity Sulfide/Cy	anide		
·		Explosives		Chromium +6		Ignitability			
Sample: O.C) ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals					QA Sam	ples	
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		ÑĀ
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID		N	ĪΑ
рН	units	TOC				Equipment Rinse ID		N	IA.
Turbidity	N.T.U.	Grain Size				Trip Blank ID		Ŋ	ĪΑ
No Oder, Do	Sample Some	e Description orange Mot	Hles	5	Split Sample Name: Agency/Com Address:	*ID:	Sample		and the second s
						v ided: MS/MSD - Duplicate Same as Above - 128		Field Blanks	
Soil sample description should inc				3000					
Munsell Color Odor Stainin		Sorting Plasticity Moists	ure	600 2012 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2					
Water sample description should in				2797 A A 111					
Color Odor Sheen Turbid		Л //		20 H. W.	/				
Logged By: Michael	Samuel) L	(Please Print)			Revie	wed by: FRC	FUIS.	1.1	ase Print)

Location ID:	- 0131	<u> 7-50</u>	Field	d Sampling I	Report			a Army Ammunitio	
Date:	4								
	-		Sa	mpling Inform	ation				
Source	Gro	undwater / Product		Surface Wa	ier	Soils	Sedimen	ts / Sludge	
Method	Bailer		Sam	ple Bottle		Scoop		Trowel	
	Pump		Bacc	n Bomb		Bowl		Hand Auger	
						Push Probe	/	Plastic Liner	~
Type/Construction				10.00 Z. 200		Mattocks	/		
Miscellaneous	Well Purg Yes - No	ing Form	/						
Sample Collection: 1100 hrs		Sample Type: Con	mposite MI, # o	MI Grab	.30	Location:	Plotted on Estimate	Map - Staked in Field - Measured - Sur	d)
Sample Depth:FT (below surfac	ce) Decon: Ded	- Each Day - Each	Location					
Field Parameters (at time of sample)		Anal	ytical	Parameters		Ot	her Para	meters	
PID / FID Readings:		VOC		TPH GRO		Corrosivity	<u> </u>		
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cya	mide		
<i>O</i> -	.0	Explosives		Chromium +6		Ignitability			
Sample: O.C) ppm	Propellants		Nitrate					
Water Level	#T	TAL Metals					QA Sam	ples	
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID		Ŋ	IA.
рН	units	TOC				Equipment Rinse ID		N	IA.
Larbidity	N.T.U.	Grain Size				Trip Blank ID		Ŋ	IA
No Odor, No loye 3/2 hon plans	Jaines mas	e Description	<i>y</i>	orted	Split Sample Name: Agency/Com Address:	D:	Sample		
sand 10%	<i>(</i> <i>(</i>					ided: MS/MSD - Doplicate - Same as Above - As I		Field Blanks	
Soil sample description should inc Munsell Color Odor Stainin Water sample description should in Color Odor Sheen Turbia	ng Texture	Sorting Plasticity Moist	ure						
Logged By: <u>Wichael</u> Signature: <u>Wichael</u>	Sam DSl	elak (Please Print)				wed by:	ius L	(Plea Date: 23 2	ase Print)

Location ID: 4155	<-01	4 M-SD	Field	Sampling R	Report		Ravenn	a Army Ammunition	Plant
11-17-DL	1					-	Characteri	zation of 14 RVAAP A	AOCs
Date:								.	
			Sar	npling Informa	ition				
Source	Grou	indwater / Product		Surface Wat	er		s/Sedimen		Γ.
Method	Bailer		Samp	ole Bottle		Scoop		Trowel	
	Pump		Baco	n Bomb		Bowl		Hand Auger	ļ.,
		<u>/</u>				Push Probe	X	Plastic Liner	X
Type/Construction			-			Mattocks			
Miscellaneous	Well Purg Yes - No	ing Form			25				
Sample Collection: 15/5 hrs		Sample Type: Co	mposite	- M - Grab	30	Location:	Plotted or Estimate	Map - Staked in Field d - Measured - Surve	eved
Sample Depth: FT ((below surfac	pe) Decon: Dec	licated -	f increments taken: - Each Day Each	Location	· · · · · · · · · · · · · · · · · · ·	Listinate	117000000	-,
Field Parameters (at time of sample)		Anal	Parameters		Ot	ther Para	meters		
PID / FID Readings:		VOC		TPH GRO		Corrosivity	/		
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cy	anide		
Ç	0.0	Explosives	4	Chromium +6		Ignitability		ļ	
Sample: 0 .	2 ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals	X				QA Sam	ples	
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No	N	IA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID		N/	A
рН	units	TOC				Equipment Rinse ID		N.A	4
Turbidity	N.T.U.	Grain Size				Trip Blank ID		N/	۱ /
No-odor	Sampl //10	e Description	<u>d</u> ,		Split Sampl	e ID:	Sample		
non plant	ر ج	TF 60/20	ley	201	Agency/Con Address:	npany:		- / 1 1	
30 d 201	,			/		100			
					QA/QCPro	vided: MS/MSD - Duplicate : : Same as Above - As	Trip Blanks	- Field Blanks	
					Parameters:	Same as Above - As	Tyrsted.		
Soil sample description should in	clude:					/			
Munsell Color Odor Stain	ing Texture	Sorting Plasticity Mois	sture						
Water sample description should						Z^{-1}			
Color Odor Sheen Turb	idity				/				
Logged By: Stephen	Stur	3801 (Please Print)			Revi	ewed by: FRC	- EUI'	S (Pleas	se Print)
Signature:	gen		Sig	gnature: 504		Date: 23	<u> </u>		

Ü

Location ID:	-0151	M-50	Field	Sampling R	leport		Raveni Character	a Army . ization of	Ammunition I	Plant OCs
Location ID:)4									
			Sar	npling Informa	tion					
Source	Grou	ndwater / Product		Surface Wat	er	Soil	Sedimer	ts / Slud	ge	
Method	Bailer		Samp	le Bottle		Scoop		Trowel		
	Pump		Baco	n Bomb	\mathcal{A}	Bowl		Hand A	Auger	
						Push Probe		Plastic	Liner	ر
Type/Construction				/ =		Mattocks				
Miscellaneous	Well Purg Yes - No	ing Form								
Sample Collection: 1535 hrs		MI Grab f increments taken:	30	Location:	Plotted or	n Map S	taked in Field	eved		
Sample Depth: FT (
Field Parameters (at time of sample)		Anal	Parameters		O	ther Par	ameters	S		
PID / FID Readings:		VOC		TPH GRO		Corrosivity				
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cy	anide			
0.	0	Explosives		Chromium +6		Ignitability				
Sample: O		Propellants		Nitrate						
Water Level	fτ	TAL Metals					QA San	aples		
Temperature	°c	Pesticides/PCBs				MS/MSD	Yes / N	0	N	A
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			N.A	
рН	units	TOC				Equipment Rinse ID			NA	
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA	1
Soil sample description should in Munsell Color Odor Stain. Water sample description should Color Odor Sheen Turb	nclude: ing Texture include:	silt 65] sad 30] clay 5 /		red	Split Sample Name: Agency/Con Address: QA/QC Pro Parameters:	vided: MS/MSD - Duplicate Same as Above As	Listed			
Logged By: Michael Signature: Machael	Synch	(Please Print)				ewed by:	EW		(Pleas	se Print)

Location ID: 11555	-0161 104	1-50	Field	Sampling Ro	eport	c	Ravenn haracteri	a Army Ammuniti zation of 14 RVAA	on Plant P AOCs
,			San	ipling Informat	tion				
Source	Grou	ndwater / Product		Surface Wate	r	Soils	Sedimen	ts / Sludge	
Method	Bailer		Samp	le Bottle		Scoop		Trowel	
	Pump		Bacor	ı Bomb		Bowl		Hand Auger	
						Push Probe	4	Plastic Liner	
Type/Construction						Mattocks			
Miscellaneous	Well Purgi Yes - No	ng Form	/						
Sample Collection: 1440 hrs Sample Depth: /) - FT (s (below surfac	Sample Type: Con If	mposite MI, # o	- MI - Grab f increments taken: Each Day Each	30 Location	Location:	Plotted or Estimate	n Map - Staked in Fi ed - Measured 8	eld urveyed
Field Parameters (at time of sample)	(0010))			Parameters		Oth	ier Para	ameters	
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cya	nide		
C	0.0	Explosives	/	Chromium +6		Ignitability			
Sample: O	O ppm	Propellants		Nitrate	/				
Water Level	FT	TAL Metals	/		-		QA San	nples	
Temperature	°c	Pesticides/PCBs				MS/MSD	Yes / N	0	NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA
рН	units	TOC				Equipment Rinse ID			NA
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA
Do Odor, Some	Sample GV aug	e Description Se Staining Sty Scot 60% Sith 60% Sad 10%	/, Y		Split Sampl Name: Agency/Cor Address: QA/QC Pro Parameters	e ID:	Sample Trip Blanks	. Field Blanks	
Soil sample description should in Munsell Color Odor Stain Water sample description should Color Odor Sheen Turb ged By:	ning Texture			iewed by: Flig	L. EL	US Date: 2/3	(Please Print)		

, , , =	A	^1 -1	Field	d Sampling I	Report				
Location ID: <u>LL555</u> Date: ///5/0	-0161	<u> </u>		- I U				na Army Ammunitio ization of 14 RVAA	
Date:	4			<u></u>				<u> </u>	
			Sa	mpling Inform	ation				
Source	Gro	andwater / Product	7	Surface Wa	ter	Soi	ls / Sedimer	its / Sludge	
Method	Bailer		Sam	ple Bottle		Scoop		Trowel	
	Pump		Васс	n Bomb		Bowl		Hand Auger	
						Push Probe		Plastic Liner	· /
Type/Construction						Mattocks	/		
Miscellaneous	Well Purg Yes - No	ing Form			100				
Sample Collection: 14/0 hrs	3	Sample Type: Co		- MI - Grab	30	Location		1 Man - Staked in Fie	
Sample Depth: FT	(below surface)			- Each Day - Each			Estimace	d - Modsarda - Du	rvoyou
Field Parameters (at time of sample)		Ana	lytical	Parameters		О	ther Para	ameters	
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cy	anide		
(20	Explosives		Chromium +6		Ignitability			
Sample:	O ppm	Propellants		Nitrate					
Water Level	FT	TAL Metals					QA Sam	ples	
Temperature	℃	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides	<u> </u>			Duplicate ID		1	NA
рН	units	TOC				Equipment Ranse ID			NA .
Turbidity	N.T.U.	Grain Size				Trip Blank ID		1	NA /
to odor, Son	Sample	e Description	an		Split Sample		Sample		
10 VR 416	- W	ash ger	Ee	4	Name:				
Marx Man	n Gb	5:11	<u></u>	2	Agency/Com Address:	pany:	,		
11.41		J Ch	730				-/		
		0.0	$\mathcal{I}_{I}_{\mathcal{I}_{I}}}}}}}}}}$	\mathbf{a}	OA (OC Pres	ided: MS/MSD = Duplicar	/	7 U.S.	
		. , , ~	-01 1	(A).		Same as Above As		Field Blanks	
					10000000	/*·			
					244.000.000.000.000.000.000.000.000.000				400000000000000000000000000000000000000
Soil sample description should in		Canting Direction Main							
Munsell Color Odor Stainin	ng Texture	Sorting Plasticity Mois	sture ⁻	·					
Munsell Color Odor Staini Water sample description should i	ng Texture	Sorting Plasticity Moi.	sture						
	ng Texture include: dity	Sorting Plasticity Mois			Davies	wed by: FRICE	EUS	Pol	ease Print)

Location ID:	017m	-50	Fiel	d Sampling l	Report			na Army Ammuniti ization of 14 RVAA	
Date:	<u> </u>		Sa	mpling Inform	ation				, v
Source	Gro	undwater / Product	/	Surface Wa		Soi	ls Sedimer	ıts / Sludge	
Method	Bailer		Sam	ple Bottle	\mathcal{A}	Scoop		Trowel	/>
	Pump		Bace	on Bomb	/	Bowl		Hand Auger	+
						Push Probe	X	Plastic Liner	$\frac{1}{\lambda}$
Type/Construction					1	Mattocks			
Miscellaneous	Well Purg Yes - No	ging Form	1	Committee Commit	1.00			,	
Sample Collection: 1435 h	<u> </u>	Sample Type: (Composite	Grab		Location	Plotted or	Map - Staked in Fig	eld
$\alpha . I$	(below surface		If MI, # 0	of increments taken: - Each Day - Each	30 Location)		Estimate	Map - Staked in Fie d - Measured - St	nrveyed
Field Parameters (at time of sample)		An	alytical	Parameters		О	ther Para	ameters	/
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cy	ranide		
0	0	Explosives	X	Chromium +6		Ignitability			
Sample: Q-	O ppm	Propellants		Nitrate	X				
Water Level	FT	TAL Metals	X				QA Sam	ples	/
Temperature	°c	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	иMHOs	Cyanides				Duplicate ID			NA
рН	units	TOC				Equipment Rinse ID	·]	NA
Turbidity /	N.T.U.	Grain Size				Trip Blank ID]	NA
OyR 3/3 OyR 3/3 OyR 3/3 Ool Stain: Water sample description should in Color Odor Sheen Turbi	aclude: ing Texture include:	Sorting Plasticity Mon	isture			·ID:		Field Blanks	
ogged By: TAMCS P	tnorr	(Please Print)	1		Revie	wed by: FRICH	=145	(Pl	lease Print)
gnature.	3					ature: 502		Date: 23	<i>-</i> 55_

Location ID: LL 555 - O) SM -	So	F	ielo	d Sampling l	Report		Doven	ia Army Ami	ition I	Nont
Date: 11/19/04	10	<u> </u>							ization of 14		
Date:				Sa	mpling Inform	ation	·				
Source	Gro	andwater / Produc	ct/	~-	Surface Wa		Soi	ls// Sedimer	rts / Sludge		
	Bailer			Sam	ple Bottle		Scoop	7	Trowel		
	Pump			Bacc	n Bomb	/ .	Bowl		Hand Auge	г	
							Push Probe	V	Plastic Line	er	V
Type/Construction							Mattocks				
	Well Purg Yes - No	ing Form		/							
Sample Collection: 1509 hrs	(- MI -) Grab f increments taken:	30	Location	Plotted or	Map Staked	l in Field)				
Sample Depth: FT (be	low surfac	ce) Decon		- Each Day Each			Estimate	u - Measure	u - Survey	yea	
Field Parameters (at time of sample)			Analyt	ical	Parameters		0	ther Para	meters		<i></i>
PID / FID Readings:	TPH GRO		Corrosivity								
Background:	ppm	SVOC		'	TPH DRO		Reactivity Sulfide/Cy	ranide			
NT		Explosives	1		Chromium +6		Ignitability				
Sample: NT	ppm	Propellants			Nitrate						
Water Level	FT	TAL Metals	9					QA Sam	ples		
Temperature	℃	Pesticides/PCBs	: 1				MS/MSD	Yes / No		NA	
Sp. Conductance:	uMHOs	Cyanides					Duplicate ID			NA	
рН	units	TOC					Equipment Rinse ID			NA	
Turbidity	N.T.U.	Grain Size			·		Trip Blank ID			NA	
No Odor, Nos	Sample	Description				Split Sample		Sample		 /	1
10YR 3/4		NED PLAST	10:41 0	A 0-	to moist	Name: Agency/Com			,		
	bi Liv		RACE			Address:	pany.		/		
	401	<u> </u>	1-110-	-2/1	<u></u>	100	No.	- /			
						QA/QC Prov	ided: MS/MSD - Duplicate -	Trip Blanks -	Field Blanks		
						Parameters:	Same as Above - As	Listed			
							/				
oil sample description should includ	de:										
oil sample description should included Munsell Color Odor Staining		Sorting Plasticity	· Moisture								
Munsell Color Odor Staining	Texture	Sorting Plasticity	Moisture								
Soil sample description should includ Munsell Color Odor Staining Vater sample description should incl Color Odor Sheen Turbidity	Texture	Sorting Plasticity	Moisture								
Munsell Color Odor Staining Vater sample description should incl	Texture lude:					Review	wed by:	€us		(Please Pr	int)

Location ID: 1555 Date: ///19/00	-018D -	50	Field	d Sampling	Report				Ammunition 14 RVAAP	
Date:///9/0°	7		Sa	mpling Inform	ation					
Source	Gro	undwater / Product		Surface Wa		Soil	ls / Sedimer	ıts / Sludg	re	
Method	Bailer		Sam	ple Bottle	12 /	Scoop		Trowel		
	Pump		Baco	on Bomb		Bowl		Hand A	uger	
			-	7		Push Probe		Plastic I	Liner	1
Type/Construction	 				The same	Mattocks			· - · · · · · · · · · · · · · · · · · ·	T
Miscellaneous	Well Purg Xes - No	ring Form		(1) (1972) Sel (1972)	Figure 2				-	
Sample Collection: /500		Sample Type:	If MI, # c	e - MI Grab of increments taken: - Each Day (Each		Location:	Plotted or Estimate	ı Map - Sta d - Meas	aked in Field Sured - Surv	l veyed
Field Parameters (at time of sample)		A	nalytical	Parameters		O	ther Para	meters		
PID'/ FID Readings:		voc		TPH GRO		Corrosivity				
Background:	ррщ	SVOC		TPH DRO		Reactivity Sulfide/Cy	anide			
		Explosives		Chromium +6		Ignitability				
Sample:	ppm	Propellants		Nitrate			· · · · · ·			
Water Level	FT	TAL Metals					QA Sam	ples		
Temperature	°c	Pesticides/PCBs				MS/MSD	Yes / No	-,	Ñ	ĪΑ
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			N.	A
рН	units	TOC				Equipment Rinse H			N/	4
Turbidity	N.T.U.	Grain Size				Trip Blank ID		Accession to the contract the	N.A	4
No Odor, No	a Staini	Description S-018M -	5 0		Split Sample Name: Agency/Com Address:	D:	Sample			
·					QA/QC Prov	ided; Ms/MSD - Duplicare - Same as Above - As		Field Blanks		
oil sample description should Munsell Color Odor Stater Tater sample description should Color Odor Sheen Tur	ining Texture									
ogged By: <u>Wickael</u> gnature: Wrchael		(Please Prin	t)			ved by: ERIC	EWS	Date:	(Please	: Print)

Location ID: 455	5-00	194-50	Field	d Sampling 1	Report		Raveni	na Army Ammunitio	n Plant		
Location ID: <u>U5</u> S Date: 12Nov	104					•		ization of 14 RVAAI			
			So	mpling Inform	ation						
Source	Gro	undwater / Product		Surface Wa		Soils / Sediments / Sludge					
Method		127.1047038	ple Bottle	74.	Scoop		Trowel				
	Pump		Baco	on Bomb		Bowl		Hand Auger	+		
		party		The process		Push Probe	X	Plastic Liner	X		
Type/Construction		and the same of th		K		Mattocks					
Miscellaneous	Well Purg Yes - No	ing Form									
Sample Collection: 1 4 5	urs .	Sample Type: (omposite	MI Grab	70	Location;	Plotted or	n Map Staked in Fiel			
Sample Depth: 0 - 1 F	T (below surface	ce) Decon: D	If MI, # o	of increments taken: - Each Day Each	Location)	_	_Estimate	d - Measured - Sur	rveyed		
Field Parameters (at time of sample)		An	alytical	Parameters		Otl	her Para	ameters			
PID / FID Readings:		VOC		TPH GRO		Corrosivity			\Box		
Background:	ppm	svoc		TPH DRO		Reactivity Sulfide/Cyanide					
	0.0	Explosives	X	Chromium +6		Ignitability					
Sample: O.	O ppm	Propellants	i.	Nitrate	X		,				
Water Level	FT	TAL Metals	X				QA Sam	ples			
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA		
Sp. Conductance:	иMHOs	Cyanides				Duplicate ID		N	IA		
рН	units	TOC				Equipment Rinse ID		N	IA		
Turbidity	N.T.U.	Grain Size				Trip Blank ID		Ń	IA.		
1048 2/2 Sample Description NO Odok some Storing, Moich well soxted a low planticity Sitt 60% clay 35%, sand 5%					Name: Agency/Com Address: QA/QC Prov	ided: MS/MSD - Doplicate - 1	Crip Blanks				
Soil sample description should include: Munsell Color Odor Staining Texture Sorting Plasticity Moisture Vater sample description should include: Color Odor Sheen Turbidity											
Logged By: Shallyann Signature:	There	(Please Print)				ved by: ERIC E	<u>کالغ</u>	-1.1	se Print)		
					Signa	ature: Stall		Date:			

Location ID: LL535	-020	DM-50	Field	l Sampling R	leport		Ravenn	a Army Ammunition	Plant		
Location ID: LL5ss-020M-SO Field Sampling R								zation of 14 RVAAP			
Sampling Information											
Source	Grou	indwater / Product		Surface Wat		Soi	ls / Sedimen	ts / Sludge			
Method	Bailer		Samp	ole Bottle	\mathcal{A}	Scoop		Trowel			
	Pump		Baco	n Bomb		Bowl		Hand Auger			
						Push Probe		/	<u> </u>		
Type/Construction	/		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX								
Miscellaneous	Well Purg Yes - No	ing Form	/								
Sample Collection: 1350 hrs		Sample Type: Con	nposite	- MI Grab	30	Location:	Plotted on 1	Map Staked in Field			
Sample Depth: 0-1 FT (below surface	e) Decon: Dec	/II, # of i licated -	Each Day - Each			Estimated -	Measured - Surveye	d		
Field Parameters (at time of sample)		Anal	ytical	Parameters		О	ther Para	meters			
PID / FID Readings:		VOC		TPH GRO		Corrosivity					
Background:	Oppm	SVOC		TPH DRO		Reactivity Sulfide/Cy	anide				
		Explosives		Chromium +6		Ignitability					
Sample:	O ppm	Propellants		Nitrate	V						
Water Level	FT	TAL Metals				QA Samples					
Temperature	~ ℃	Pesticides/PCBs				MS/MSD	Yes / No	NA N	A		
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID	- P-033 0 D O				
рН	units	тос				Equipment Rinse ID		A NA			
Turbidity	N.T.U.	Grain Size				Trip Blank ID	N.	A NA			
No odor, N 104r 4/3 10wplastic	0 5 ta	clay 35%	d_ S	i1+ 65%	Split Sample Split Sample ID: Name: Agency/Company: Address:						
Soil sample description should include: Munsell Color Odor Staining Texture Sorting Plasticity Moisture Water sample description should include: Color Odor Sheen Turbidity Logged By: Jawes Pane 720 (Please Print)					QA/QC Provided: MS/MSD-Duplicate - Deb Blanks - Field Blanks Parameters: Same as Above - As Listed						
Logged By: James F Signature:	3 3	(Please Print)				ewed by: <u>EPIC</u> gnature: <i>ELE</i>	EULS	Date: 2/3/s	e Print)		
					318		10	Date			

Location ID: LL5xx-	021M-	50	Fiel	d Sampling	Report				Ammunitio	
Date:	4			·	···					
G		7	Sa /	mpling Inform		() <u>,.</u>			
Source Method	Bailer	undwater / Product	· ·	Surface Wa	fer /		ils/Sedimen			
Metnou		/-			/ -	Scoop		Trowe		_
	Pump		Bac	on Bomb		Bowl		Hand A		
		/		1		Push Probe	V	Plastic	Liner	1
Type/Construction				1	AMERICAN STREET	Mattocks				<u> </u>
Miscellaneous	Well Pur	ging Form		Park and The Control of the Control	19 (19 (19 (19 (19 (19 (19 (19 (19 (19 (
Sample Collection: 1550 Sample Depth: 0 - 1	_ hrs FT (below surfa	Sample Type: C	IfMI,# o	MI - Grab of inerements taken: - Each Day - Each	30 Location	Location	Plotted on Estimated		taked in Field sured - Sur	
Field Parameters (at time of sample)		Ana	lytical	Parameters		Other Parameters				
PID'/ FID Readings:		VOC		TPH GRO		Corrosivity				$\overline{\mathbf{I}}$
Background:). <i>(</i>) ppm	SVOC		TPH DRO		Reactivity Sulfide/C	yanide			
	/	Explosives		Chromium +6		Ignitability				1
Sample:	, 4 ppm	Propellants		Nitrate						
Water Level	FT	TAL Metals				QA Samples				
Temperature	°c	Pesticides/PCBs				MS/MSD	Yes / No		, (¢	NA)
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID	LL5 55	-0211	M-DUP N	A
рН	units	TOC		** ·		Equipment Rinse ID			Ñ	<u>A</u>
Furbidity	N.T.U.	Grain Size				Trip Blank ID			, M	A)
NO ODOR NO	STAINING	Description			Split Sample	ID: <u>LL5% - c</u>				
10YR 4/6	LOWTO MED	PLASTICTY WELL S	RTE	MOIST	Name: Agency/Com	<u> </u>				77)
	SILTY (Chay W/SAN	D		Address:	EXE MARETIN LUT				_
		(/			لاتعا	Sville LKY	40207	2		
						ided: MS/MSD - Paplicate -		Field Blank		
					Parameters:	Same as Above As	Listed			
oil sample description should include:						e de la region de la composición de la Composición de la composición de la co				
Munsell Color Odor Staining Texture Sorting Plasticity Moisture										
ater sample description shoul		o J								
Color Odor Sheen Tur										
gged By: NICESH Silv	RINGARPURĒ	(Please Print)			Reviev	ved by: FPLC	FUI	5	(Please	e Print)
gnature: NMIA GEM	hire	((10.000 2 1.000)				ature: SA	, 000	Date:	2/3/0	•

Location ID: LL555	6-02. D4	2M -50	Fiel	d Sampling I	Report			na Army Ammunitio ization of 14 RVAAI		
Sampling Information										
Source	Grou	ındwater / Product		Surface Wa	ter	Soi	ls /Sedimen	its / Sludge		
Method	Bailer		San	iple Bottle	Scoop		Trowel			
	Pump		Bac	on Bomb		Bowl		Hand Auger		
					10	Push Probe	/	Plastic Liner	/	
Type/Construction						Mattocks				
Miscellaneous	Well Purg Xes - No	ing Form								
	Sample Collection: 6936 hrs Sample Type: Composite M Grab If M # of increments taken						Plotted or Estimate	Map Staked in Field - Measured - Sur	d veyed	
Field Parameters (at time of sample)		Aı	nalytica	l Parameters		О	ther Para	meters		
PID / FID Readings:		VOC		TPH GRO		Corrosivity			1	
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cyanic				
(·. <i>0</i>	Explosives		Chromium +6		Ignitability				
Sample: Q.(O ppm	Propellants		Nitrate	/					
Water Level	FT	TAL Metals	1			QA Samples				
Temperature	℃	Pesticides/PCBs				MS/MSD	Yes No		NA	
Sp. Conductance:	uMHOs	Cyanides	-			Duplicate ID			ΙA	
pH m	units	TOC				Equipment Rinse ID			íA	
Turbidity	N.T.U,	Grain Size				Trip Blank ID		N	A	
Sample Description Stight organic oder, No Staining 10 y R 1/3, month, med planticity well sosted Silt 60 th. Clay 35 th. Soil sample description should include:					Split Sample Split Sample ID: Name: Agency/Company: Address: QA/QC Provided: MS/MSD - Duplicate = Tuf Blanks - Field Blanks Parameters: Same as Above - As Listed					
Munsell Color Odor Staining Texture Sorting Plasticity Moisture										
Water sample description should it						- 12 Tests				
Color Odor Sheen Turbia	lity	/ /		4	/					
ogged By: Michael Samelake (Please Print) gnature: Wished IS Al						wed by: FUC nature: FUE	EUIS	Date: 2/3/-	ise Print)	

Location ID: LL555	M-50	Field	d Sampling I	Report			Ravenna Army Ammunition Plant Characterization of 14 RVAAP AOCs		
Date: 11/15/04									
			Sa	mpling Inform	ation				
Source	Grou	andwater / Product	4	Surface Wa	ter /	Soils / Sediments / Sludge			
Method	Bailer		Sam	ple Bottle		Scoop		Trowel	
	Pump		Васс	on Bomb		Bowl		Hand Auger	
						Push Probe	X	Plastic Liner	X
Type/Construction						Mattocks			
Miscellaneous	Well Purg Yes - No	ing Form		a casa a saada a sa					
Sample Collection: 1405 hrs	3	Sample Type: C	If MI, # o	f increments taken:	30	Location		Map - Staked in Field d - Measured - Surv	
Sample Depth: FT ((below surfac	ce) Decon: De	edicated	- Each Day Each	Location	и .			
Field Parameters (at time of sample)		Ana	lytical	Parameters		О	ther Para	imeters	
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cy	anide		
0	20	Explosives	X	Chromium +6		Ignitability			
Sample: O.C	2 ppm	Propellants		Nitrate	X				
Water Level	FT	TAL Metals	X			QA Samples			
Temperature	°c	Pesticides/PCBs				MS/MSD	N	ΙA	
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID		N.	
рН	units	TOC				Equipment Riese ID			4
Turbidity	N.T.U.	Grain Size				Trip Blank ID		N.	4
No odor,	Sample 100 57	Pescription far pang	et.		Split Sample Name: Agency/Com	ED:	Sample		
cly 30%,						vided: MSMSD - Duplicate - Same as Above - As		Field Blanks	
Soil sample description should include:									
Munsell Color Odor Staining Texture Sorting Plasticity Moisture									
Water sample description should include: Color Odor Sheen Turbidity									
Logged By: Tames	9110220	(Please Print)			Revie	wed by: EKIC.	Flus	(Pleas	e Print)
Signature:		(2.10000 1.1111)			Sign	wed by: EKIC nature: EKIC		Date: 2/3/0	_
- Jane	0	<i>//</i>							<u></u>

Location ID: 1155	s-02	4M-50	Field	d Sampling F	Report			a Army Ammunitio zation of 14 RVAAF	
Location ID: 1155: Date: 12 NOV	04								11000
			Sai	mpling Informa	ition				
Source	Grou	ındwater / Product		Surface Wat	er	Soil	s) Sedimen	ts / Sludge	
Method	Bailer		Samj	ple Bottle		Scoop		Trowel	
	Pump		Baco	n Bomb	\mathcal{A}	Bowl		Hand Auger	
						Push Probe		Plastic Liner	
Type/Construction		/				Mattocks			
Miscellaneous	Well Purg Yes - No	ing Form	/						
Sample Collection: 1045 hrs		Sample Type: Con	MI, # o	of increments taken:	<i>3</i> 0	Location:	Plotted on Estimate	Map Staked in Field - Measured - Sur	d veyed
	(below surfac			- Each Day Each	Location				
Field Parameters (at time of sample)		Anal	ytical	Parameters		O	ther Para	meters	
PID / FID Readings:		VOC		TPH GRO		Corrosivity			
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cyan			
Q	0.0	Explosives		Chromium +6		Ignitability			
Sample: O	O ppm	Propellants		Nitrate	/				
Water Level	FT	TAL Metals	/				QA Sam	ples	
Temperature	°C	Pesticides/PCBs				MS/MSD	Yes / No		NA
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID		, A	NA
рН	units	TOC				Equipment Rinse ID		N	NA .
Turbidity	N.T.U.	Grain Size				Trip Blank ID		<u>N</u>	IA
Soil sample description should include: Munsell Color Odor Staining Texture Sorting Plasticity Moisture					Split Sample Split Sample Name: Agency/Company: Address: OA/QC Provided: MS/MSD - Duplicate - Top Blanks - Field Blanks Parameters: Same as Above - As Listed				
Water sample description should include:									
Color Odor Sheen Turbi	· -	a la la mana				and here = 01/	GUNS		nna Print'
Logged By: Michael) B1	(Please Print)				ewed by: FRIC	<u>-W13</u>	-1-1	ease Print)
Signature: McMallHX						nature: SK2	^	Date	

Field Sampling Report Ravenna Army Ammunition Plant Characterization of 14 RVAAP AOCs Sampling Information Surface Water Groundwater / Product Soils / Sediments / Sludge Source Sample Bottle Trowel Bailer Scoop Method Bowl Hand Auger Pump Bacon Bomb Push Probe Plastic Liner Mattocks Type/Construction Miscellaneous Well Purging Form Yes - No Sample Collection: <u>0955</u> hrs Location: Plotted on Map Staked in Field Sample Type: Composite - MI - Grab Estimated - Measured - Surveyed If MI, # of increments taken: Decon: Dedicated - Each Day Each Location Sample Depth: () - 1 FT (below surface) **Other Parameters Field Parameters Analytical Parameters** (at time of sample) VOC TPH GRO PID / FID Readings: Corrosivity Background: SVOC TPH DRO Reactivity Sulfide/Cyanide Explosives Chromium +6 Ignitability Sample: Propellants Nitrate TAL Metals Water Level **QA Samples** °C Pesticides/PCBs MS/MSD Yes / No NA **Temperature** uMHOs Sp. Conductance: Cyanides Duplicate ID NA units TOC Equipment Rinse ID NA pН Trip Blank ID Turbidity N.T.U. NA Grain Size Sample Description Split Sample Split Sample ID: Agency/Company: Address: QA/QC Provided: MS/MSD - Duplicate / Trip Blanks - Field Blanks Parameters: Same as Above - As Listed Soil sample description should include: Munsell Color Odor Staining Texture Sorting Plasticity Moisture Water sample description should include: Color Odor Sheen Turbidity Reviewed by: Logged By: (Please Print) (Please Print) Signature: Michael Signature:

Location ID:	5-026N	1-50	Field	d Sampling l	Report			ta Army Ammunitization of 14 RVA			
Date:///>///					-	4 •					
			Sa	mpling Inform							
Source		undwater / Product	4	Surface Wa	ter /		s \Sedimen		Sludge		
Method	Bailer			ple Bottle	/	Scoop		Trowel			
	Pump		Baco	on Bomb		Bowl		Hand Auger			
				1		Push Probe 55	$\perp \times$	Plastic Liner	X		
Type/Construction				7		Mattocks					
Miscellaneous	Weil Purg Xes - No	ging Form									
Sample Collection: 15/0 Sample Depth: 0-1	hrs FT (below surface	Sample Type:	If MI, # c	MI - Grab of sucrements taken: - Each Day - Each	50 Location	Location:	Plotted on Estimated	Map - Staked in Fi	ield Surveyed		
Field Parameters (at time of sample)				Parameters		Ot	ther Para	meters			
PID / FID Readings:		VOC		TPH GRO		Corrosivity					
Background:	ppm	SVOC		TPH DRO		Reactivity Sulfide/Cy	anide				
	7,9	Explosives	X	Chromium +6		Ignitability					
Sample:	O ppm	Propellants		Nitrate	X						
Water Level	FT	TAL Metals	X				QA Samples				
Temperature	~ ℃	Pesticides/PCBs				MS/MSD Yes W			NA		
Sp. Conductance:	uMHOs	Cyanides				Duplicate ID			NA		
рН	units	TOC				Equipment Riase ID			NA		
Turbidity	N.T.U.	Grain Size				Trip Blank ID			NA		
Soil sample description should include: Manual Color Odor Sheen Turbidity Standard Standard Sample description should include: Color Odor Sheen Turbidity						ID:		Field Blanks			
Logged By: James	Janorn	(Please Print	:)	7:	Revie	wed by: ERC	5W5		Please Print)		
Signature: Same S						ature: The		Date: 2-3	25 _		